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EDWARD INGLE, Managing Editor.

THOMAS P. GRASTY,
General Staff Correspondent.

Branch Offices:

New York—52 Broadway.
Boston—170 Summer Street.
Chicago—135 Adams Street.
St. Louis—310 Equitable Building.

Charleston, W. Va.—ALBERT PHENIX,
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BALTIMORE, MAY 2, 1907.

THE OUTLOOK FOR NEW RAILROADS.

Notwithstanding all the recent agitation concerning railroad regulation and restriction by various legislative bodies, there is decided evidence of confidence in the future as to the success of transportation enterprises in the frequent incorporation of railroad companies in one or another of the States. These enterprises crop out as spontaneously as does the grass in springtime, which shows that there is need for them and that their facilities are required for the development of the country. This is particularly true with respect to the South, where the demand for greater and better railroad facilities is constantly increasing, and it applies also with equal force to Indian and Oklahoma Territories. The Railroad Construction columns of the MANUFACTURERS' RECORD every week bear witness to the number of these projects in the Southern States and to their necessity in the upbuilding of this section. Apparently there is just as much preparation this spring for railroad construction as there has been at any time during the past year, and this indicates that the promoters of these enterprises, who are for the most part residents of the sections through which the lines are to run, feel confident that nothing will be done in a legislative way which will be seriously harmful to railroads, and while construction may for a time be comparatively inactive, preparation is being made to undertake it with great vigor as soon as the financial conditions brought about by the agitation shall

have been succeeded by a confident and hopeful money market.

Meanwhile the great enterprises which were started two or three years ago continue advancing toward completion. The Tidewater Railway and the South & Western Railway, for instance, are making steady progress toward the goals set for them, and within a comparatively short time will be performing the work for which they were planned. The Atlanta, Birmingham & Atlantic Railway, another road from the mountain to the sea, is also driving onward to a completion of its route, and moreover is surveying for a southwestern outlet to the Gulf of Mexico. The Norfolk & Western Railway and the Chesapeake & Ohio Railway are improving their lines and preparing to handle more business than ever. The forces compelling the advancement of these enterprises are too great to be resisted, but the harm which is being done by the attacks upon the railroad companies is shown in the delay to other work, which is postponed indefinitely because of the difficulty of floating new bond issues except at prohibitive rates of interest. Less work is being done than would have been under way had the vigorous campaign begun against the companies not been accompanied by features which embodied onerous conditions upon those engaged in transportation service.

In the southwestern portion of the Southern States the demand for more railroads is particularly pressing. In response to this there are many new companies incorporated or organizing, and the existing trunk lines are doing what they can to provide required transportation facilities, but the disposition in some of the States is to so restrict railroad companies that the inducements to build new lines are not what they might be, and the settlement of new sections, as well as the advance in price of lands therein, are proportionately hindered. This sort of thing is likely to continue until a more generous attitude is maintained toward railroad enterprise. Investors will not put their money in bonds for the building of new railroads unless they see ahead a reasonable promise of success for them without anticipation of restrictive legislation at each session of a State Legislature. There seems to be a popular notion that holders of railroad securities generally reap large returns upon them, but the fact is that there are extremely few who receive a rate of interest equal to that which is paid by the average building association. With such truths as these and others concerning railroad corporations before it the public's demand should be tempered by moderation and sense. Nothing should be done in a spirit of retaliation or attack.

Thoughtful persons are disposed to believe that the railroads and the people will soon attain harmony, but what is to be feared is that some irreparable damage may be done by hasty action before an adjustment of differences is reached.

VASTNESS OF NEEDED RAILROAD EXPANSION.

Mr. W. C. Brown, vice-president of the New York Central Railroad, in an address at Buffalo last week discussing the railroad situation, said:

If the development and extension of the nation is to go on, if the progress made during the last 10 years may be accepted as in any respect a measure of progress to be made during the coming decade, almost as much money will have to be expended in increasing the facilities of existing railroads and in building additional railroads as has been expended during the 80 years since the beginning of construction of railroads in the United States.

In this Mr. Brown is pre-eminently correct. The MANUFACTURERS' RECORD has been unceasingly striving for years to impress upon our bankers and our great railroad leaders the fact that business was rapidly outgrowing transportation facilities. When the Pennsylvania Railroad made its bitter fight to keep the Gould lines from getting into Pittsburg and West Virginia the MANUFACTURERS' RECORD criticised this opposition and stated that it was most unwise from every point of view, and that the traffic of that section would always be in advance of any railroad facilities that could be provided. Attention was later called to the fact that there is stored up in West Virginia enough coal to supply more freight annually than the total wheat crop of 800,000,000 bushels a year would supply in 3000 years. This coal is available just as rapidly as facilities can be provided for mining and handling it, for the demand is increasing more rapidly than mining and railroad operations can be increased to enlarge the output. Kentucky has an equal amount of freight stored within its mountains; Alabama in coal and iron has about as much. But, outside of these particular States, the general material development of the South and of the country at large is on such a stupendous scale that we do not seem to be able to grasp the marvelous conditions under which we are living. The human brain seems almost incapable of comprehending what is taking place, and so our business men, bankers and railroad people do not themselves quite grasp the marvelous expansion of traffic nor realize that we have reached a time when there must be a complete reconstruction or rebuilding, using this in its broader sense, of the entire transportation facilities of the whole country.

Nearly two years ago the MANUFACTURERS' RECORD pointed to these facts and showed that at least \$4,000,000,000 or \$5,000,000,000 must be expended immediately for railroad expansion or there would be a breakdown in transportation. Later on the same figures were taken up by President Hill, and a little later the MANUFACTURERS' RECORD again reviewed the situation and pointed out that even though the railroads should spend \$5,000,000,000 immediately they still would not be able to more than catch up with the present needs of traffic, without counting the fact that traffic is practically doubling every eight or ten years, and that under these conditions the National Government must begin a broad campaign for improving the rivers of the country. When we first presented this subject some of our readers thought that we had possibly overdrawn the conditions, but they realize now, if they are studying the situation, what we well knew then, that the statements made were extremely conservative, and that minimum rather than maximum estimates were purposely used.

Returning, however, to Mr. Brown's very interesting address, in which he refers to the inability of the railroads to keep up with traffic, he says:

The reason for this condition is the tremendous commercial activity of the past three years could not have been foreseen. It came as a surprise to the farmer, the merchant, the manufacturer and the railroads.

In this Mr. Brown is incorrect. This condition could have been foreseen. In failing to see its coming the railroad people showed their inability to rightly measure the momentum of American development. In November, 1902, in an elaborate discussion of the situation, the MANUFACTURERS' RECORD pointed out exactly what has since taken place, and even then said:

Every railroad in the country is so overcrowded with business, both passenger and freight, that it is impossible to promptly handle the traffic. It is not, as in former years, a fight to secure traffic, but it is now an unceasing struggle for traffic managers to find the cars and the locomotives to handle that which is offered. Almost every locomotive in the country is doing double duty, and so great is the urgency that between trains passenger locomotives are pressed, even for a few hours at a time, into freight service. It is no longer possible to send locomotives to the shops to be overhauled and repaired as soon as needed, for so incessant is the cry from the transportation men that hardly a locomotive has a chance to cool from one trip to the next. The fact is, the whole railroad interests of the country are staggered by the overwhelming volume of traffic offered—this, too, in the face of the fact that last year we had the shortest corn crop for 10 years or more.

About the same time, pointing to the pessimistic utterances of Mr. Vanderbilt and others who were predicting the cessation of this great activity, the MANUFACTURERS' RECORD stated that while there might be a temporary let-up in order to permit the railroads to catch up with traffic, the next burst of activity would far exceed anything then known, and, discussing these conditions and the lack of a proper understanding on the part of the bankers of the country, it said:

May it not be that they have failed to fully grasp the recuperative power of a country of 80,000,000 people with such potentialities for the development of business, the employment of the people and the creation of wealth as no other nation, even as no other continent, has ever dreamed of, now that we have been freed, as we were a few years ago, from the great incubus of an unsettled monetary standard, which for years had halted our progress? May they not have failed to give full appreciation to the fact that with an increase of population of 15,000,000 or more people every 10 years we have an increase in agricultural products of over \$2,000,000,000 a year compared with 1890, and about \$5,000,000,000 a year in manufactures and mining compared with the same year? Ten years ago the value of our

agricultural products was, in round numbers, \$3,000,000,000 a year, and of our mineral and manufactured products \$10,000,000,000, a total of \$13,000,000,000. Now our farms are yielding over \$5,000,000,000, and our mines and factories about \$15,000,000,000, a total of \$20,000,000,000 a year. Thus the output of these two interests is now annually exceeding by \$7,000,000,000 their output in 1890, only 10 years ago—a gain of 60 per cent., while population only increased about 25 per cent.

These statements, made in November, 1902, may be reiterated at the present time with added emphasis. It seemed to be an amazing thing at that time that within 10 years the value of our manufactured and agricultural products should have grown from \$13,000,000,000 to \$20,000,000,000, or a gain at the rate of \$7,000,000,000 a year. At that time our farms were yielding \$5,000,000,000 a year, while last year the output of American farms was but little less than \$7,000,000,000. The aggregate value of the output of our mines and factories, which was then about \$15,000,000,000 a year, is now at least \$20,000,000,000, or a total of farm, factory and mine production at the rate of \$27,000,000,000 a year, against \$20,000,000,000 in 1902 and \$13,000,000,000 10 years preceding that. When Mr. Brown points out that we must entirely double our transportation facilities within 10 years unless American progress is to be halted, it might appropriately be added that we shall in that time, judging by the past, fully double the volume of freight offered for transportation. Measured by the increasing consumption per capita and the growth of population, the 25,000,000 tons of pig-iron which we made last year must by 10 years hence have grown to 50,000,000 tons as a minimum, and the 405,000,000 tons of coal mined in 1906 must by 1916 have advanced to 800,000,000 to 900,000,000 tons, and this means that we must absolutely double the entire iron and steel and coal-mining interests of the United States. We increased our cement (Portland) from 8,000,000 barrels in 1900 to 46,000,000 barrels in 1906. This percentage of gain is so vast that it would be difficult to hazard the wildest guess as to how many millions of barrels we will produce 10 years hence. Certainly in cement we must far more than double, probably quite quadruple, the trade of today.

If, in order to help meet these conditions, the railroads need to spend in 10 years as much as has been spent in the last 80, as Mr. Brown puts it; if they will be compelled, in order to meet the most urgent necessities of the day, to spend \$4,000,000,000 or \$5,000,000,000 in the next five years, and still be short of cars and locomotives, still short of tracks and terminal facilities, is it not incumbent upon the National Government, through a bond issue of \$500,000,000 to \$1,000,000,000, or one-fifth to one-tenth of what the railroads will be compelled to spend, to undertake in a very broad campaign the opening up of every important river in the country which can be made available for transportation, in order to benefit the public by lessening the pressure on the railroads, and here and there for the same purpose construct important canals, which, by reaching the great freight centers, such as the coal and iron regions of Pennsylvania and Birmingham, would open up new transportation facilities where congestion must otherwise become greater? How triflingly small would such an expenditure be as compared with the benefits to be received or with the amount which the railroads must of necessity provide?

It is likewise essential in this crucial period in transportation interests that the people at large should put away the hostility of the past, some of which has been well deserved, and undertake now, by co-operation in legislation and in financing, to make it possible for the railroads to do their part of the work. We need now to get together and stop agitation which prevents the securing of needed capital for railroad expansion. Conditions demand improvements of railroad facilities on such a scale as to simply stagger the mind as one looks out on the possibilities of the coming years.

FEDERAL AID TO STAGNATION.

Some folks who for one reason and another have been peculiarly susceptible, for promotive purposes, to the divers and sundry ticklings of the manifold tentacles of the Ogden Movement seem to act upon the mistaken theory that every time Ogdenism changes its clothes a new thing is presented. Some of those folks have their home in Georgia. It will be recalled that, as soon as it got its fingers upon its first philanthropic millions, the Ogden Movement selected Georgia as the stage upon which to play its first seductive part by means of gifts from its own coffers, conditional, of course, or from the pockets of its individual adherents. That was followed by the selection of Georgia as a field for the sowing of the seed that might produce a crop of public sentiment favorable to the acceptance by the United States Government of financial assistance from the General Education Board, to the end that "Southern bankers will not lend money now to men who do not follow the methods [in farming] taught by the Board's instructors," according to a statement credited to the President of the General Education Board. Then Mr. Ogden had to travel all the way from New York to Atlanta for the ostensible purpose of "arranging" preliminaries for the "Conference" at Pinehurst, N. C., meanwhile managing to be interviewed in apparent denial of a proposition that had hardly been accurately considered by him. Georgia, too, was made the center of promotion, through personal interviews and "confidential" correspondence, of the ridiculous but dangerous scheme, not entirely separate from Ogdenism, for the creation of an absurdity to be known as a Southern Commission on the Relations of the Blacks and Whites. In spite of its premature death, or, perhaps, because of it, that scheme still festers in the Southern body here and there. To it is now added, through the Atlanta Constitution, an emphasis of another fester long known as the scheme for "federal aid to education." The Constitution seems to suggest that the call for a conference of 50 leading business men at Atlanta on May 24 is an excuse for exposing to the public gaze again what careful students incline to hold as the corpse of the scheme which the self-respect and self-reliance of the South of 20 years ago laid in the tomb and labeled Blairism in education. It intimates that the Southern Education Board has introduced a leaven into the South. But it should know that as far as the Southern Education Board, the campaign organ of the Ogden Movement, has been responsible for a revival of the utterly discredited Blair scheme, it has really introduced a virus reeking with the gases of a grave.

The Constitution is probably unaware that seven or eight years ago, before the Ogden Movement was welcomed to Georgia with some such words as "in so far as this conference disregards the color line in education it would be wel-

comed by all our people," the question of the revival of Blairism in education had been tentatively protruded by an individual who was in reality much of the real brains of the movement while it still lurked in inchoate guise amid the free entertainment of Capon Springs. But there was on hand a Southerner, by the name of William L. Wilson, at the time the honored president of Washington and Lee University, who not only had a memory, but also a sense of decency and of the menace of such a scheme. His opposition resulted in the withdrawal of the proposition, but only tentatively; for, according to an "authoritative" but characteristically mushy statement:

The proposal from that day forward has gained increasing consideration, and yet there has been much unwillingness to make the suggestion an explicit part of a formal program. It has seemed right as well as wise that those who accept it and those who reject it should remain—without the introduction of a divisive issue—as collaborators in the immediate practical advancement of the general program of educational revival.

As a matter of fact, promotion of the revival of this horror of Blairism has been confined almost exclusively to the entourage of the Ogden Movement, as is quite natural to a movement for the promotion of beggary in education. Anybody wishing to know the ultimate end of such a scheme should ponder upon the words of one of its most ardent advocates, Mr. Charles A. Gardiner of New York. He would—

Endow the [National] Bureau of Education with supervisory powers . . . so that it can make education compulsory, fix the courses of study and direct instruction into any channel—industrial, intellectual, moral or religious—that the citizenship of any locality may particularly require.

The 50 business men of Georgia, when they meet at Atlanta on May 24, may well consider the certain ends of the scheme of federal aid to education, thus baldly and boldly set forth, and may well ask whether their State is ready for any policy which might involve the mixing of races in the public schools as being required particularly for the uplifting of the citizenship of Georgia, from the standpoint of the National Bureau of Education in full charge of the direction of educational activities in the country. When that Bureau is dominated, as it certainly would be, by the Educational Trust centered in the General Education Board with sufficient millions behind it to "determine largely what institutions shall grow, and in some measure what shall stand still or decay," and "might be able really to determine the character of American education," as it is put by an Ogdenitish journalist, the men of the country, dazzled by the glitter of the General Education Board's generalities or confused by its readiness to shift its position into giving it countenance in any form, may be shocked into sensibility. At any rate, the business men of Georgia may well ask, "Why should any State of the South where wealth has increased during the past six years at the rate of \$3,000,000 a day consider for a moment a proposition looking to private philanthropy or national treasury for assistance in educating its children right?" That means, not federal aid to education, but federal aid to stagnation.

UNITED IN AFFLICTION.

One of the most significant statements made in connection with the shortage of textile-mill labor in Connecticut and other New England States is that of the Lowell Courier-Citizen, that "the only comfort is that the South

is no better off." Such a suggestion would hardly have been made 25 years ago, and the fact that New England in affliction is able to find consolation in similar affliction in the South is rather a striking tribute to the advance made by the South in textiles.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 101, 102, 103, 104 and 105.

INROADS UPON THE FORESTS.

Of the estimated total cut between 1880 and 1906 of 706,712,000,000 of board feet of lumber in this country, the 14 Southern States produced 235,147,000,000 feet, or nearly one-third. The cut by States in that period is shown in the following table:

States.	Board feet.
Alabama.....	19,825,000,000
Arkansas.....	23,332,600,000
Florida.....	14,802,000,000
Georgia.....	21,865,000,000
Kentucky.....	13,618,000,000
Louisiana.....	19,889,000,000
Maryland.....	3,394,000,000
Mississippi.....	20,173,000,000
North Carolina.....	20,485,000,000
South Carolina.....	8,466,000,000
Tennessee.....	15,858,000,000
Texas.....	24,109,000,000
Virginia.....	16,176,000,000
West Virginia.....	12,654,000,000
Total.....	235,147,000,000
United States.....	706,712,000,000

The annual cut of lumber today in the South is a larger proportion of the total annual cut in the country than its total for the 26-year period, and it is likely to become even greater proportionately within the next few years with the shifting in the industry that has been quite marked during the past 50 or 60 years, and the next 20 years are likely to show some record for three or four Southern States rivaling that of Michigan, Wisconsin, Minnesota and Pennsylvania, which since 1880 have had an aggregate output of nearly 256,000,000,000 feet, or 36 per cent. of the country's production. Until 1870 the Northeastern States dominated in lumber production, ranging from 54.5 per cent. in 1850 to 36.8 per cent. in 1870, and then declining to 16 per cent. in 1900. In 1870 the production in the Lake States, which had been but 6.4 per cent. of the total in 1850, a much smaller percentage than that of the Southern States in that year, rose to 24.4 per cent. and advanced to 36.3 per cent. in 1890. The Southern States' production had already in 1890 made some recovery from the drop between 1860 and 1880, and are now, according to experts, approaching their proportionate maximum, while at the same time the ascendancy of the Pacific States is already marked.

The passing of the dominancy, from the Lake States to the South has been about coincident with the passing of the day of white pine, indicated by the statement at the beginning of this year that since 1895 nearly 250 firms, representing an aggregate annual output of 4,250,000,000 feet of pine lumber, had quit business because of the exhaustion of the timber supply. At present the South is cutting about 12,000,000,000 feet of yellow pine, or more than one-third the total cut of all lumber in the country. The maximum cut of yellow pine has not yet been reached, and it is pointed out in a circular of the National Forest Service by Forest Inspector R. S. Kellogg, from which the accompanying facts are derived, that it is evident that within 10 or 15 years there will be a most serious shortage in yellow pine. Mr. Kellogg shows that while within the period between 1880 and 1900 the population of the United States increased but 52 per cent., the lumber cut increased from 18,000,000,000 feet to

35,000,000,000 feet, or 94 per cent. That is one of the striking facts emphasizing the contention that the forest capital of this country is being rapidly exhausted with the present annual consumption of wood in all forms from three to four times as great as the annual increment of the forest, and pointing to the absolute necessity for prompt and vigorous work for the economic handling of a source of wealth now representing more than \$1,000,000,000 a year. There is no reason in wisdom why this source of wealth should not remain permanent. But the only way of assuring permanency is to be found in the application to the handling of the timber upon 554,313,511 acres of private and unreserved public forests of the same intelligent principles that prevail in the conservation of the fertility of the soil. There are limits to the productivity of coal fields or deposits of ore. Reproduction is not possible there. But the forests of the country may be maintained as a steady source of wealth forever. That will not happen if the forests are handled like coal mines.

NO CAUSE FOR HYSTERIA.

Mr. R. B. Naylor, secretary of the Board of Trade of Wheeling, W. Va., referring to a pamphlet reproducing from the MANUFACTURERS' RECORD a mass of telegrams from representative manufacturers and business men of affairs of the country, writes:

A copy of your pamphlet, "The Solid Basis of America's Prosperity," has been received at this office, and I think you are doing a splendid work toward maintaining the country's confidence and keeping the commercial temperature at a normal point. The arguments from merchants and manufacturers everywhere presented in your symposium are irrefutable evidence that our present prosperity is on a substantial basis and that the hysteria which exists in some quarters has no stable foundation. I congratulate you on the good work you are doing. I would like very much to have a score or more of these pamphlets for distribution among our members, and would be very glad if you would send me them at your earliest opportunity.

MAKING SURE.

A. L. Fulenwider, president of the Birmingham Realty Co., under date of April 22 writes:

I herewith enclose you check for \$12 to pay in advance for three years' subscription to the MANUFACTURERS' RECORD.

We take it that Mr. Fulenwider is so enthusiastic in his appreciation of the MANUFACTURERS' RECORD that he desires to express it in this way by a voluntary subscription three years in advance. We are always willing to add to our list, whether the subscriber comes for three months, six months, twelve months or thirty-six months. There is still room for more to follow.

OPERATIONS OF THE TENNESSEE COAL, IRON & RAILROAD CO.

The annual report of the Tennessee Coal, Iron & Railroad Co., giving in detail the operations of the fiscal year of the company, which corresponds with the calendar year ending December 31, shows how rapidly this company under the present ownership is developing its operations. This is especially noticeable in the production of steel, which increased from 155,266 gross tons in 1904 to 401,882 tons in 1906, the output for the latter year showing a difference of only 500 tons as compared with that for 1905. But, looking to the future, the company announces what has previously been stated in the MANUFACTURERS' RECORD, that they have authorized the construction of a modern steel works and rail mill, which are expected to double the steel output and rail capacity and radically reduce the costs. As

these new works will not be completed for some months, it is not expected that the company will get any increased benefit in the way of production or earnings until in the latter part of 1907. The output of pig-iron increased from 475,314 gross tons in 1904 and 529,036 tons in 1905 to 641,887 tons in 1906, while the production of iron ore advanced from 1,208,038 tons in 1904 to 1,483,476 tons last year. In coal production there was a decline in 1905 as compared with 1904, owing to labor conditions, but this has now been more than regained, and the output for 1906 was 3,207,657 tons, against 2,231,659 tons in 1905 and 2,756,300 tons in 1904. As compared with 1905, there was an increase of 276,000 tons of coke.

The magnitude of the operations of the company is also indicated by the fact that at the end of 1906 it was employing 11,857 men, an increase of 3200 over 1904. The total amount paid in salaries and wages in 1906 was \$7,291,430, against \$5,041,246 in 1904 and \$5,490,265 in 1905. The increase in the average amount of wages paid is shown by the fact that the average for 1905 was \$527 a year and for 1906 \$614, an average increase of \$87, or over 16 per cent. In discussing the resources in raw materials of this company the report says:

"The knowledge that your executive committee has acquired as to the tonnage and character of the iron ore, coal and limestone owned in fee simple by your company satisfies them that in wealth of raw materials required for the manufacture of iron and steel your company ranks as second to only one in the world, and is far in advance of any other iron or steel producer in cost of assembling its raw materials for manufacture. The mineral reserves of coal and iron contained in your lands, as computed by competent authorities, are estimated to be 700,000,000 tons of iron ore and 2,000,000,000 tons of coal. Approximately one-half of your coal supply is of a superior coking quality, and your iron ore is largely of a self-fluxing character, analyzing approximately 38 per cent. metallic iron."

When the United States Steel Corporation was organized its total holdings of ore were estimated at 700,000,000 tons, and in capitalizing the company this ore was estimated as worth a dollar a ton in the ground. Since then the company, by the lease of the Hill lands and the purchase of other properties, has considerably increased its supply of ore, but, next to that company, the Tennessee Coal, Iron & Railroad Co. is undoubtedly correct in the claim that it ranks second in the world in the ownership of raw materials for the manufacture of iron and steel. While ranking as close as it does to the United States Steel Corporation in the amount of ore, it is doubtless very far ahead of it in the supply of coal, having probably 50 to 100 per cent. more coal than is owned by the Steel Corporation.

As the largest industrial enterprise in the South, and in the iron business so far outranking all others that the world to a large extent judges of Southern iron by the operations of the Tennessee Company, it is a matter of the deepest interest to the South that this corporation, so long the football of unscrupulous speculating and gambling in Wall Street, is now being legitimately developed on very broad lines and for the fullest utilization of the remarkable advantages possessed by this and other companies in the Birmingham district. If the men who now control this property carry out its development by the expenditure of \$25,000,000 or \$30,000,000, as has been stated they will do, for the enlargement of its operations by the building of new works, they will not only add vastly to their own wealth, but they

will be great benefactors to the South, for the broadest development of this great enterprise, with its vast resources, would help to attract large capital for other iron and steel works. And one great thing which the Southern iron business needs is the investment of many millions of dollars in the building of the most modern furnace and steel plants to rival the great works in the East and West.

GRAIN EXPORTS.

A movement of much significance to the exporters of grain throughout the country has been undertaken by the grain committee of the Board of Trade of New Orleans, La. This movement has taken shape in letters being sent to all grain exporters in the principal seaport cities of the country, asking that representatives be appointed to meet in convention at some point mutually agreeable for the purpose of organizing a body to be known as the Export Grain Exchange International Association. Briefly outlined, the purposes of the association will be as follows: First, uniform laws for the grading of export grain. Second, a time for the adoption of a standard sample, not to be changed during the crop year. Third, measures for the enforcement of the rules and standard by the various ports. In order to carry out properly the ideas of the association it is suggested that a supervising committee composed of three grain experts be employed, who shall be men of high integrity and ability and who shall devote their entire time to the duties of their office. The committee will have an office at some central point and sealed samples of every shipment of grain loaded at the various points will be sent there for inspection. This movement is intended to overcome the dissatisfaction of European buyers as to the present standards of American grain inspection and prevent any possible boycotting of American grain.

HE KNOWS WHAT HE WANTS.

From a Southern student in a Northern university, planning, apparently, to secure work during the summer recess, the MANUFACTURERS' RECORD has received a letter so much to the point that it has taken the liberty of reproducing, as an illustration of the way to go about getting a thing one wants, the letter as follows:

"I am anxious to secure lucrative employment from June 1 to October 1 of this year. Can you refer me to a publisher or manufacturer who would like to have a confidential representative to open branches, check up agents or make reports or do anything of this nature? I would prefer Southern territory. I am from Atlanta, Ga., and know several of the Southern cities. I am 25 years old, have had business training from my youth, have read law and have been in college three years. I feel capable of assuming responsibilities. I have some excellent references if desired. Any favor you may show me will be very greatly appreciated."

The MANUFACTURERS' RECORD is not personally acquainted with the writer of that letter, but is so impressed with the businesslike character of the letter that it publishes it in full and will take pleasure in forwarding to its author any answers addressed to "Collegian," care of MANUFACTURERS' RECORD, Baltimore, Md.

THE COTTON MOVEMENT.

In his report for April 26 Colonel Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 238 days of the present season was 12,546,156 bales, an increase over the same period last year of 2,598,505 bales. The exports were 7,651,072 bales, an increase of 2,110,-

623 bales. The takings were, by Northern spinners, 2,291,351 bales, an increase of 227,255; by Southern spinners, 1,882,197 bales, an increase of 104,422 bales. It is interesting to note that the increase in the total supply of cotton during the 238 days of the present season over that of the preceding season was but 9444 bales greater than the increase in the aggregate of exports and American takings of cotton.

TO ATTRACT IMMIGRANTS.

One of the most comprehensive of recent publications in the interest of immigration to the South is a folder just issued by the North Carolina Department of Agriculture and Immigration, of which Mr. S. L. Patterson is commissioner and Mr. T. K. Bruner is secretary. Backed by a map of the State, the folder, which is full of half-tone illustrations, gives a mass of succinct facts about North Carolina in general, its climate, taxation, education, general agriculture, early and late trucking crops, fruits, live stock, minerals, manufacturing, commercial fisheries and oysters, game, forestry and transportation. The folder will be issued also in the German and Swedish language.

The circulation of immigration literature in the language of the peoples whom it is desired to attract to the South is one of the most practical methods to be pursued. Enterprising recognition of that fact is given in the distribution of a special immigration edition of the *Georgia Deutsche Zeitung*, Columbus, Ga., under the auspices of the Georgia Bureau of Industries and Immigration at Atlanta. That bureau, in charge of Commissioner Samuel C. Dunlap, represents co-operation on the part of the Atlantic Coast Line, the Atlantic & West Point, the Georgia, the Nashville, Chattanooga & St. Louis, the Louisiana & Nashville and the Macon, Dublin & Savannah railroads. Colonel Dunlap laid out and superintended the special issue of the *Zeitung* for distribution in Germany and Austria, where several thousand copies have already been placed.

Among the leading articles is a review of the resources and advantages of Georgia, and special attention is given to the climate, soil, agriculture, horticulture, stock-breeding, dairying, trucking, mining, quarrying and manufacturing. This is one of the most thorough publications of its kind that has ever been issued.

TEXAS BANKERS.

A letter to the MANUFACTURERS' RECORD from President C. A. Beasley of the Texas Bankers' Association, noting the fact that the association on its annual excursion will spend three hours in Baltimore, directs attention to the benefits for everybody concerned to be derived from such an excursion. This will be the sixth trip of the kind of the Texas bankers, and it will embrace 15 States and the District of Columbia and a number of provinces in Canada, together with a visit to the Jamestown Exposition, and will cover a distance of more than 5000 miles. Aside from the pleasure of visiting new scenes, the excursionists will have opportunity to make new acquaintances and to broaden their view of things generally. Their comparatively short stays in the cities to be visited by them will, to be sure, hardly permit of any formal entertainment, but it will be long enough to create the basis for substantial ties between the cities and the great and growing Commonwealth of the Southwest.

EXHIBITING THE SOUTH.

The Southern Railway, with its usual degree of enterprise in pushing the resources and advantages of the South to the front, was ready, when the gates of

the Jamestown Exposition were thrown open to the public, and greeted the visitors to the State's Palace with a magnificent exhibit. It was one of the few exhibits "ready for business." No better exhibit has ever been made by a railroad for the purpose of advertising the resources of the South. An expert on such exhibits says: "It is the best display ever made by a railroad." The varied resources of the farms, orchards, mines and forests of the country along the Southern Railway are comprehensively and artistically brought out in this practical exhibit. Visitors, and especially those contemplating a change of location, should be sure and see the exhibit when they are at the exposition.

TO ADVERTISE ONE'S CITY.

The editor of the St. Petersburg (Fla.) *Independent*, who is accustomed to doing his own thinking, makes the following suggestions to his readers:

"Three weeks ago the Board of Trade sent out 1000 copies of the *Independent* to 1000 addresses throughout the United States. This particular issue contained the account of the Board of Trade banquet.

"The other day a prominent real-estate dealer called me into his office to show me the inquiries he had received throughout the United States for St. Petersburg property, and wondered why the letters had come in a bunch. I told him the reason, and he replied: 'Wouldn't it be a good idea to do that every week?'

"It certainly would.

"It would bring tens of thousands of dollars of new capital into St. Petersburg, hundreds of settlers and thousands of tourists.

"It would be the best investment that could be made."

These suggestions are in perfect accord with what the MANUFACTURERS' RECORD has again and again urged upon its friends among the weekly papers of the South. Such newspapers come in closer touch than any other kind with their readers, and, exerting consequently much greater influence, are held to stricter accountability. Aside from that, they are in an exceedingly strong position for work for the advancement of their respective communities and of the whole South. That work will be done, and done effectively, if the editors of the weekly papers, taking their cue from the results noted by the St. Petersburg *Independent*, will act practically upon a recognition of the importance as news of everything bearing upon the resources and attractions and progress of their town or vicinity and hunt down news of that character with the same eagerness with which the bird-dog looks for the birds. The bringing to light of such information should be supplemented from time to time with interviews with all of the newcomers to the community, telling of what they have accomplished, of their satisfaction with their new home, of their interest in its advancement and of the opportunities which they have utilized since finding a home in the South. Let these interviews tell of soil and climate in contrast with the conditions of their former homes, and of opportunities for others to come where every prospect pleases. There is scarcely a place in the South where interesting interviews of this kind could not be worked up almost every week. Then when they are published let the local business people and the trade organizations from week to week take a few copies and mark such items of news and send to their friends and correspondents throughout the country. There are very few places in the South from which such papers could not be sent out to very great advantage. If a campaign of this kind should be carried on by the entire weekly press of the South, backed up by the local people, the

good which would be accomplished in attracting the attention of outsiders to this section, of drawing people and money southward, would be greater than one can well comprehend without giving some thought and study to it. It may take some time for the local people in every community to quite appreciate the importance of sending to their friends marked copies of papers containing such facts and interviews about their locality, but with persistent work on the part of the editors of these papers such co-operation can eventually be secured, to the great benefit, first, of the community, and then of the newspapers themselves by the reflex action which would come from increasing population and increasing prosperity.

FROM AUSTRALIA.

Bearing on the question of foreign trade, and illustrating again, as many of the letters which we have recently published have illustrated, the wide circulation of the MANUFACTURERS' RECORD in foreign countries, is a letter from W. H. MacLennan, manufacturers' representative, Lombard Building, Melbourne. In discussing the trade relations between the United States and Australia Mr. MacLennan says:

"I am not a 'pressman,' and consequently may not readily pick up 'copy,' but as your magazine is essentially interested in the commercial side of life I would point out a tendency here which may at some future date affect American interests in Australia. There is a growing feeling on this side in favor of preference treatment to goods produced in different parts of the British Empire, and this preference seems likely to take the form of a fiscal policy more favorable to British goods than to others. This, after all, is the method established by America, and consequently I take it that Americans can hardly take exception to the introduction of a preferential policy which is likely to favor our own people. I am not discussing politics; I am only talking business. At the same time I realize that in some lines America has certain natural advantages, just as Australia has natural advantages also, and I think it would be possible for America to fix a reciprocal tariff with our Commonwealth. This is a matter which ought to be taken up by your commercial bureau and discussed on its merits. It is not that Australia looks upon America as a 'foreigner,' but the fact remains that the American grants no preference to the 'Britisher,' and the Australians therefore reckon that the Britisher has the first claim for preference if there is any to be given. This also is more a matter of national business than ordinary politics."

SOUTHERN VEGETARIANS.

[Southern Farm Magazine.]

A professor of Yale University has been testing meat-eaters and vegetarians among a lot of collegians. The first test, which was regarded as particularly significant, was in the power of holding out the hand. It was discovered that only two meat-eaters out of 15 could hold out their hands for a quarter of an hour. But 22 out of 32 vegetarians exceeded that limit and 15 of the 32 held out their hands for half an hour. That explains it all. The test was made at Yale, but it is known that among the Ogdenite incense-burners in a few Southern colleges are quite a number who have been holding out their hands for nearly five years. Who suspected that there was so much vegetarianism in the South.

The Fort Worth Real Estate Trust Co. of Fort Worth, Texas, capital \$50,000, has been incorporated by J. E. Head, C. W. Head and M. H. Ward.

TWENTIETH CENTURY BEAUMONT

Elements in the City's Industrial and Commercial Progress.

[Special Cor. Manufacturers' Record.]

Beaumont, Texas, April 20.

Beaumont impresses the stranger with the fact that here is centered much in the utilities that give assurance of what is to be expected of this growing metropolis, judging of what has already been accomplished in the past. Every street, business house, manufacturing plant, factory and forge exemplifies a twentieth century business push and energy indicative of the wide-awake men of affairs who have, by their foresight and good business judgment, made a city the State may well feel proud of. Beaumont, the principal city in Southeast Texas, is situated on the west bank of the Neches river, which has an average depth of 35 feet from the city to the mouth, where it flows on to Sabine Lake and reaches the Gulf of Mexico through Sabine Pass. The Government, recognizing the commercial importance of Beaumont and the necessity for safe and commodious harbors on the Gulf coast that can accommodate the traffic of land and sea, is spending considerably over \$500,000 on a canal which, when completed, will give 25 to 30 feet of water to the Gulf, furnishing an outlet for the commerce of the North and West, as well as a distributing point for foreign trade. Your correspondent was informed by reputable citizens of Beaumont that, owing to the strategic relation of the city to the commerce of the country, it has largely attracted the attention of the Government, thereby making Beaumont quite an important factor in national transportation problems.

Beaumont has for some time been known as the oil center of the coastal field, and its refineries and pipe lines make its supremacy permanent. The oil fields tributary to Beaumont have yielded 90,000,000 barrels, valued at \$40,000,000; in fact, it is a great industrial as well as a commercial center, and while it leads in the refining of oil, milling of rice and manufacture of lumber, other industrial pursuits are well represented. Surrounded, as Beaumont is, by raw materials, both above and beneath the earth, with excellent transportation facilities, both natural and acquired, cheap fuel, abundant labor supply, agricultural resources, progressive citizenship, organizing and encouraging industries and developing the mineral resources, Beaumont is one of the logical industrial centers of the Gulf coast, and, judging from all indications, the natural laws of commerce are forcing industries to gravitate toward this city.

Let me give a few of the important elements in the growth of Beaumont which are today giving a great impetus in her wonderful growth and development. First are her transportation facilities. Beaumont has the following railroads: The Frisco Railway, Gulf, Colorado & Santa Fe Railway, Texas & New Orleans Railway, Gulf & Interstate Railway, Kansas City Southern Railway, Sabine & East Texas Railway, Gulf, Beaumont & Kansas City Railway, Beaumont Wharf & Terminal Railway and Beaumont, Sour Lake & Western Railway. In addition to her extensive railroad connections, Beaumont has one advantage which cannot be overestimated in her river transportation and deep-water facilities. Your correspondent was given the opportunity to inspect the Sabine Lake ship channel in company with Mr. J. A. Arnold, secretary of the Chamber of Commerce, and a number of public citizens, who, on board a commodious and swift naphtha launch, had a splendid chance to see the work being done by the Bowers Southern Dredging Co. It is to be doubted if anywhere on

the American Continent is there a river so well adapted to commerce as the Neches. It has a depth of 35 feet and a width of 1000 feet for a considerable distance above Beaumont. It is a mild stream that feels the effects of the tide 200 miles inland. It is of even depth and width, and its shores form natural wharfrage. It is a commercial body of water. On its placid waters can anchor all the ships that float, and its wharves can accommodate largely the trade of the world. It is navigable for 350 miles above Beaumont, and the Government is now working on a canal which, when completed, will give 25 feet of water to the Gulf of Mexico, giving access to Cuba, South America, Panama and foreign markets. The Intercoastal Canal will connect Beaumont with the Mississippi river and tributary branches, opening of the interior markets of the United States at minimum transportation rates, thus making Beaumont a splendid and enviable distributing point. It will thus be seen that when the Government provides an appropriation sufficient to deepen the channel to that of the Port Arthur Canal, and ships of the ocean tie at the doors of Beaumont, this city will take rank as one of the large cities of the country and will be so situated as to attract financial men of the world, as well as a large portion of the trade through the ports bordering the Gulf.

Cheap fuel is another great lever in the development of Beaumont. Fuel oil can be obtained here at a minimum cost. All the pipe lines lead to Beaumont. The production of the coastal field is assembled here for distribution or passes through on its journey to the sea. I have been reliably informed that it is estimated that three barrels of oil equal one ton of coal. The oil can be obtained at an average price of 50 cents per barrel, and, taking into consideration that there is little or no expense in handling, it makes a fuel much cheaper than coal and furnishes a fire that is easily regulated, clean and every way satisfactory. The total production of the Texas field during 1905 was 30,404,263 barrels.

One of the very important factors in the growth and development of Beaumont is its Chamber of Commerce, officered and controlled by a body of practical, wide-awake and progressive men. Capt. W. C. Tyrrell is president, a man of affairs, and who is an indefatigable worker in every measure looking to the upbuilding of the city. Mr. J. A. Arnold is the efficient and capable secretary, and is a man cut out by nature to fill such a responsible position. He is a man of but few words, but withal a regular beaver in his work. Your correspondent is indebted to this gentleman for many courtesies shown the MANUFACTURERS' RECORD. I learn from Mr. Arnold that Beaumont glories in the fact, and I quote him verbatim, that Beaumont has some "of the largest rice mills in the world, some of the largest lumber mills in the world, some of the largest oil refineries in the world, some of the cheapest and best fuel in the world and one of the largest irrigation plants in the world." He also states that "the amount of capital invested in manufactures is \$18,351,300, number of employes 6256, while the monthly payroll amounts to \$248,150. For this year these amounts will largely exceed these figures, while in the way of building construction an amount exceeding \$336,000 will have been expended during the present year."

The banks of a city are, perhaps, the best index to the wealth and prosperity of a community. Beaumont has three national and one State bank, with a combined capital of \$550,000, combined average deposits of \$4,154,933 and surplus and undivided profits of \$606,572.98. The

social, religious and educational institutions are well organized, and most of them have splendid edifices of their own. One of the great bases of substantial progress in the city is to be found in the wholesale business, growing every year into large proportions. Number of wholesale houses, 30; capital invested, \$1,635,000, and the volume of business for the year 1905 ran up into \$6,720,000.

I cite a number of productive elements which are to be found in and around Beaumont which will, when capital becomes sufficiently acquainted with the resources of this section, tend to a much larger development than is to be found today. For instance, here we have in abundance clay and pottery, building stone and quarries, sulphur, salt, silica, mineral deposits, timber and oil. Rice, cotton, grains, grasses, tobacco, and especially truck farming, are to be noted as agricultural possibilities, while peaches (the famous Elberta peach finding its home just north of the city) and other fruits are extensively grown, and the quality of the product too well known and the method of cultivation too common to need description.

The climate of Beaumont is an ideal one; the winters are never severe, the mercury seldom sinking to the freezing point—a delightful climate free from extremes, droughts never occur, devastating storms have never swept this territory and earthquakes are unknown. There is no dormant or idle season when consumption eats away production, as in countries where cold paralyzes productive effort for half the year, or exhaustive heat restricts a portion of the other half. This has its economic value, every day a working day, and cannot fail to impress the industrious and frugal who wish to utilize their capital which lies largely in daily earnings.

Your correspondent was extended the courtesy of a drive by Mr. J. A. Arnold, secretary of the Chamber of Commerce, throughout the oil fields and around the country contiguous to the city of Beaumont. The territory immediately around Beaumont produces fine strawberries, figs, onions, potatoes and all kinds of small vegetables. People casting about for profitable investment of their idle money should not overlook the canning industry. There is no reason why Texas should send to the East for its canned fruits and vegetables. There is a very high market throughout Texas for everything in canned goods. Another raw product that should be manufactured into the finished article is lumber. Beaumont is the center of the great lumber industry. It is the home of many lumber concerns, while a great many more, with headquarters in sections of the country remote from Beaumont, maintain offices here. With all this, and with money being made in making the finished material, there is a splendid chance for the investment of capital in factories of all kinds wherein lumber enters. Beaumont is the logical center for a car factory; in fact, for several of them. There are many reasons why Beaumont should start a great industrial campaign for the manufacture of the raw materials.

One of the veritable business landmarks of Beaumont is the E. L. Wilson Hardware Co., dealing in shelf and heavy hardware, oil-well and mill supplies, roofing, wagons, paint and oils, also lime, cement and fire-brick. This house reflects in a business sense the great growth and prosperity of the city. G. R. Ferguson is president, W. S. Davidson vice-president and John L. Keith secretary and treasurer. They supply territory within a radius of 150 miles of Beaumont, and stand deservedly high. The Neches Iron Works is enlarging its plant to meet the demands of trade, having grown beyond all expecta-

tions in the last 12 months. The Sun Lumber Co., the Gorilla-Dimock Lumber Co., Beaumont Lumber Co. and the Marine Iron Works are all splendid examples of the business push and energy reflected in the men of affairs who are driving Beaumont ahead along lines of productive development.

The future of Beaumont is rosy with growth and advancement. All the elements of prosperity are centered here. It is only a question of time when this city will more than double its population and increase in many folds its great variety of business interests and manufacturing industries.

ALEXANDER HELPER.

IN THE AIR OF THE FREE.

Reflections of the Independent Attitude of the West.

[Special Cor. Manufacturers' Record.]

Chicago, Ill., April 29.

The Western manufacturers and supply houses, overrun with business, working day and night to keep up with their orders, would be almost thankful to see some sign of a temporary halt in the demand for the material and goods they are making, but confess that there is not the slightest prospect at present of any let-up.

The most sanguine sort of optimism prevails over the entire Central West, and the news from Wall Street which has been given more or less attention by Eastern papers for the past couple of months hardly finds a place in the columns of the Western dailies. As one Chicago manufacturer puts it, Chicago is no longer dependent upon New York for its financial backing. At one time it was very necessary that any important Chicago undertaking should seek aid in Wall Street, but today New York is finding it necessary to consult Chicago bankers and merchants in floating many of their enterprises.

Good crops throughout the wheat belt are confidently predicted, and while some attention has been paid to temporary "scarcies," always due at this season, they have not aroused any serious apprehension; but, on the contrary, in nearly every instance where an adverse report is received about the lateness of the crop or damage from bugs it is offset by the encouraging report from another State where predictions are freely made for the largest harvest for several years.

There is particularly noticeable among the large manufacturers and shippers a tendency to "let-up" on the railroads. A monster petition has already been circulated and signed by hundreds of railway supply houses, and some similar expression of disapproval of present criticism will no doubt take shape in other lines. These manufacturers and business men realize that there has been a great deal of senseless opprobrium heaped upon decent railroads and their management for the sins of a few, and even then there is a way to go about correcting evils besides hurling abuse. They say the thing has gone far enough. Railroads are not only recognized as necessities in our business existence, but as leaders that set the pace for prosperity in many lines, and those hard-headed manufacturers do not feel like calling a halt yet awhile on conditions which have placed almost every workman in the land in easy circumstances and filled the savings banks of the country with the largest average deposits from the largest number of working people in the land's history.

It is easily noticed that croakers have no place in the thriving Central West. Men are working day and night, literally "making hay while the sun shines," and building operations in Chicago particularly are going on every day in the week, without any let-up even on Sundays.

THE COMPLEX, FAR-REACHING RAILROAD PROBLEM

By HENRY FINK,

Chairman of the Board of Directors Norfolk & Western Railway Co.

[Written for the Manufacturers' Record.]

I have read with great interest the editorial in your issue of April 18, headed "Plain Truths About Railroads." It is admirable and in line with the good work in which the MANUFACTURERS' RECORD has been engaged for many years. Your plea for justice to the railroads is as timely as your warning that unwise legislation invariably results in injury to the public.

Your statement that "the State which undertakes by unwise legislation to cripple or hamper its railroads is the worst enemy of its own people" is one of the plain truths about railroads that must commend itself to all thoughtful persons. Indeed, it is obvious that such legislation necessarily defeats its object, whether it be enacted for the purpose of punishing the railroads for alleged misdeeds in the past or to compel them to meet promptly all the present and future requirements of a largely-expanded traffic, for in the one case such legislation must, in the long run, inflict greater injury upon the people than upon the railroads, and in the other case, by destroying the credit of railroad corporations, it is made impossible for them to furnish the needed additional facilities.

But why should railroads be punished? Having been continuously connected with Southern railroads ever since the early 50s, and being familiar with the conditions under which most of them were constructed and have been operated, I may perhaps be allowed to add my testimony to that of others to the effect that Southern railroads have been administered honestly, both during construction and in their operation, and that "the great majority of railroads and railroad people have been doing the very best in their power honestly to meet the conditions of the times without graft or fraud."

Of course, I am obliged to except the period of the dark days of reconstruction, when adventurers and unscrupulous politicians had obtained control of some of the Southern railroads. I may say that the railroads of the South have done their whole duty to the people. They need no other defense than the results of the work of developing the great resources of the South, a work in which the railroads have most heartily co-operated. Nor do I think that railroad managers can be held responsible for their inability to meet promptly all the demands for transportation created by the enormously-developed traffic. While they must regret such inability as the people whom they serve do, they cannot be called upon to apologize for it. For what human being could have predicted in the early 90s, when thousands of miles of Southern railroads were in the hands of receivers, the great expansion of business which has taken place in recent years?

As you know, it has at no time been easy to obtain money for Southern enterprises. Yet hundreds of millions of dollars have been invested in recent years in the improvement of Southern railroads and in providing increased facilities; many more millions will be expended in the future if hostile legislation shall not destroy the credit of railroad companies.

There is another truth which should be told to the people. A great deal of nonsense is being promulgated on the subject of overcapitalization of railroads in this country. It seems to me that the talk of "stock-watering" when referring to Southern railroads is almost ridiculous, in view of the past history of those roads and the fact that most of them have passed through bankruptcy—some of them more

than once—and that millions of dollars invested in railroad properties have been sunk. It is true that in reorganizing railroads stock has been issued to bondholders to compensate them in a measure for the scaling down of their bonds and reducing the rate of interest with the view of diminishing the fixed charges of the reorganized company. (I know of one instance where the first-mortgage bonds of a railroad were cut down 45 per cent. of their par value, 65 per cent. being issued to the holders of such bonds in stock.) But such issues of stock can in no sense be considered as water. They represent actual values in the form of drafts on more prosperous times, and in many cases these drafts have been honored. In case of overcapitalization by means of stock-watering, Wall Street can always be relied upon to squeeze out the water.

It seems to me as if the cry of overcapitalization, stock-watering and the demand for an official valuation of railroads were raised mainly for the purpose of obtaining more drastic anti-railroad legislation, for such official valuation can serve no useful purpose. Capitalization has nothing whatever to do with railway rates. An official valuation cannot be used to determine the reasonableness of rates. How long will this agitation continue?

The present situation reminds me of the conditions in the early 70s, when popular prejudices and bitter feelings found expression in the Granger laws, known in Wisconsin as the Potter laws. That, however, was at a time of great business depression, while the present agitation is continued at a time when the country is enjoying unexampled prosperity. The Granger and Potter laws were repealed or amended not long after their enactment. With better times a reaction ensued and a better feeling prevailed. The Railway Commissioners of Wisconsin, in their report for 1874, and in setting forth the inconsistencies of these laws, conclude as follows:

"Surely there is no apology for the exercise on the part of the State of any power over corporations which can be safely and as wisely exercised by the corporations themselves. There is no principle of American government so thoroughly or so properly established as that which limits the province of legislation at all times and under all circumstances to enactments for the general good, and which denies to government the right or the duty of unnecessary interference with private or public enterprise."

May we not at the present time hope for an early reaction? Not until the railroad problem is more generally and better understood by the people.

I concur in the opinion expressed by the late President Spencer of the Southern Railway Co. in concluding his address before the Traffic Club of Pittsburg in April, 1905, that the verdict of "the court of last resort, that great tribunal, public opinion," upon the complex and far-reaching question now being agitated will be just and fair when the question shall be thoroughly understood in all its bearings.

At the annual meeting of the Chamber of Commerce of Galveston, Texas, the following board of directors were re-elected for the ensuing year: Messrs. M. Lasker, J. H. Langbehn, H. Mosle, George Seeliger, Louis Schneider, F. C. Pabet, C. H. McMaster, John Adriance, Alfred Holt, J. H. W. Steele, John Sealy and R. Waverley Smith.

SWEPT THE MARKET CLEAN.

Buying Wave in Iron at Birmingham.

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., April 29.

The buying wave that swept over the market the past week was the forerunner of what is freely predicted now and what has been foreshadowed for some time past in these letters. This buying wave battered down all reserves and swept the market clean of all the iron that could be obtained. When the delivery wanted or preferred could not be had, the buyers took what they could get. It was the busiest week the iron market has had for quite a while, and the demand was so fast and furious that it was a puzzle to the sellers to account for it. It looked as if the buyers had all concluded about the same time that if they wanted any iron for any delivery this year they had better take it while they could get it. There were both small and large buyers, and among the latter were several who had been at pains weeks ago to announce that their requirement for the entire year had been covered. If they really thought so their disappointment came to all of them about the same time, and a genuine rush to cover was made with all speed. Some succeeded and some failed to get in in time. The amount sold can be only approximately given, as some sales were withheld. But it can be said in all sincerity that those who had any iron to sell had no trouble to find buyers, and so strong were the importunities for iron, if only for a small lot, that some sellers, in a spirit of accommodation, let go some lots when they were not disposed to sell and were not offering. All deliveries were included in the sales, but the bulk of them were for the last half or the last quarter. At the close of the week the consensus of opinion among the iron men was that the market was near enough sold up to permit everybody to go off fishing for the summer. As evidence of the anticipated output being pretty closely sold up, it can be stated that announcement has been made that certain makes of certain furnaces would not be offered the remainder of the year because of the sale of their anticipated output for that period. But for it being considered bad policy to do so, the names of these furnaces so closely sold would be given. One interest sold during the week an amount approximating 25,000 tons. Another interest sold 15,000 tons, and in like proportion other interests sold. It is therefore a very conservative estimate to say that the aggregate sales for the week will approximate 60,000 tons, and they could have been much larger had the iron been here to feed the demand. It is but a step now from present conditions to a runaway market. If it comes it will not be because of any effort on the part of the sellers, for to the last man among them they are radically opposed to any such feature of the market. If it comes (there is nothing now to prevent it) it will be because of the peculiar conditions that surround it.

It is useless to deny the fact that we are facing conditions that suggest an iron famine. More than one interest will be put to it to make deliveries that will be satisfactory, and buyers should make up their minds to be prepared to endure some disappointments, for they are sure to be their portion. The detailed statement of sales that is usually given is omitted because it could not be obtained, but the sales included all of the grades, and, as above stated, the market was swept clean of all iron that could be had. A prominent broker said to your correspondent that on Friday he had an order to buy 2000 tons of iron of certain makes on a basis of \$19 for No. 2 foundry, last half,

and he could not get it. It is reiterated that but twice previous to the present time have our furnace yards been so well cleaned up as they are now. But present conditions have been clearly foreseen, and the warning signal of danger was sounded only to be disregarded.

The scrap-iron market participated in the interest manifested in the market for pig iron, and one of the largest deals made of late was concluded, involving 1000 tons of machinery castings, to be broken by a drop. It is not often that such amounts are reported in one transaction in this market. The price paid was \$15 per ton. This was the only transaction of moment reported. Quotations are unchanged, as follows, to wit:

Old iron rails, \$23.50 to \$24.
Old iron axles, \$24 to \$25.
Old steel axles, \$15.50 to \$16.
Old car wheels, \$20.50 to \$21.50.
No. 1 railroad wrought, \$17.50.
No. 2 railroad wrought, \$16 to \$17.
No. 1 country wrought, \$15.50 to \$16.
No. 2 country wrought, \$14.50 to \$15.
No. 1 steel, \$13.50.
Machinery castings, \$16.50.
Stove plate, \$14.
Borings, \$9.50.
Cut boiler, \$13.

There are no changes made in the market for cast-iron pipe, but it is no secret that prices can be slightly shaded. It is understood that new business is not importunate. For four and six-inch the price is \$35, and for eight, ten and twelve-inch pipe the price is \$33. For large sizes the price is \$31. Relay rails continue unchanged. It is hardly worth while to quote them, as they are so difficult to obtain.

To give one an idea of values, the following sales are reported, viz.: Some analysis iron was sold at \$24.75 for near-by shipment, and some was sold at \$23.50 carrying 4 per cent. silicon, while another lot went at \$22.50, May shipment. For the last half and the last quarter, No. 2 foundry went at both \$18.50 and \$19. For the third quarter some went at both these prices. The leading interest led in the selling, and its undeviating price was \$18.50, for the last half. One interest sold 1500 tons No. 3 foundry for the last half on the \$18.50 basis, 250 each month. No sales of the other grades were reported, though they were proportionately sold. On Saturday 600 tons were sold to a local buyer at \$19, and freight of 50 cents added. Delivery is fourth quarter.

An offer of \$19 for 500 tons, third quarter delivery, was declined. On Friday an order from New York was received for 6000 tons, last half. It was accepted at \$19 basis, and the bulk of the total went to Boston and Philadelphia. A small part of it went to the West. Some interests have announced their retirement from the market, temporarily at least, and some state that they have so little to draw upon that they are practically out, too. A few, but a very few, are yet in the market, but they have advanced price to a \$19.50 basis for No. 2 foundry, third quarter; and there is talk of advancing price to a \$19.50 basis for No. 2 foundry for delivery the last quarter.

This is as fair and complete a statement of market conditions as can be given. They unquestionably point to higher values, and, strange as it may seem, an advance is not desired by the majority of those interested. The Quinn furnace at Gadsden is reported as having been sold, the purchasers being Bixby & Grace of St. Louis. It is current gossip that the American Car & Foundry Co. is behind the deal and will receive the furnace output of iron. It is reported as being ready for the torch. J. W. McQueen, who is receiver for the Jenifer furnace, has settled its affairs and paid to interested par-

ties 50 per cent. cash and balance in second-mortgage bonds. No announcement of what will be done with it has been made.

Two important enterprises are in process of being established here and are in such condition of maturity that we can regard them as certainties. One is the location of the Southern Spot Cotton Exchange here. It would be difficult to overestimate the benefit such an enterprise would be to this city and district. No other place in the State can, in the necessary essentials, compete with the inducements offered by this city. We carry 35 per cent. of the total bank deposits of the State and control 27 per cent. of the resources. Preliminary steps are being taken to put the enterprise on a solid business footing. If successful (and Birmingham knows now no such word as fail), the removal of the headquarters of the Cotton Association of necessity follows, and we become at once an important factor in the cotton world.

The other enterprise is the establishment of a new life insurance company backed by Southern capital and officered by Southern men. It is to be capitalized at \$500,000 and the parent office is to be located here. There are other industrial developments being born which in a little while will be heralded with due notice. Barring untoward fortune they are certainties.

Our industries seem to be having continuous prosperity. One of the managers among them voiced their condition when, in reply to a question about conditions, he said: "I never had and I never saw so much prosperity. With over \$200,000 worth of business on my books and more of it constantly coming in, I am fighting half the time trying to keep from adding to it." And this is not an exceptional case. If there is anything on the business horizon that portends a change it has not come within our view here. J. M. K.

COLLAPSE OF A PIER.

Unprecedented Accident in Construction Work.

Through an accident, the cause of which has not as yet been determined, pier No. 8, being constructed at the Locust Point, Baltimore, terminal of the Baltimore & Ohio Railroad, collapsed last Saturday and fell into the water, carrying with it the steel and timber superstructure and causing the loss of several lives.

The structure, which was rapidly nearing completion, was to cost about \$750,000, and was being built and equipped according to the most approved plans of modern engineering. Every effort was made to have it substantial in all particulars. According to statements made at the time, prior to starting the work numerous borings were made and analyzed to determine the exact character of the bottom of the river and its ability to carry the structure which was to be put upon it, but nothing was found to prevent the erection of the pier at the point desired.

The pier was built in 30 feet of water. The piles, 60 feet in length, first passed through mud which was soft at the surface, but which became harder until at a depth of 10 feet it was hard clay. All of the piles had been driven down to resistance under the personal inspection of supervising engineers, and they were sunk 25 feet in the bottom of the river. Between 9000 and 10,000 piles were used, and upon these a solid timber platform was laid, which connected and tied all of the piles together. On the edges of the timber platform concrete retaining walls to the height of 10 feet were built, and the interior space was filled with sand. Sleepers of heavy timber were imbedded in the sand, and on these the main floor of the pier was laid, and the whole pier was cov-

ered with a steel and timber superstructure, about 2000 tons of steel being used. With the aid of pumps about 27,000 cubic yards of sand and gravel had been deposited around the piles to form a sort of ridge or backbone to the pier, and the top of this pile of sand and gravel was within 10 feet of the surface of the water. This was done to prevent vibration when large vessels were docking. This pier, which was being built to take care of four of the old piers, was to be equipped with every arrangement to facilitate the handling of freight, and included in the equipment was to be eight elevators, four barrel hoists, four traveling cranes and numerous wharf drops. Berth space was available for three of the largest steamships which come to Baltimore.

As soon as the wreckage is cleared away investigations will be made by divers in order to determine if possible the exact cause of the accident. It is not believed by those thoroughly posted on the work that the design was faulty in any way, but every effort is to be made by the municipal authorities to determine the cause of the accident and place the responsibility for its occurrence.

Reedy River Power Co.

In referring to the Reedy River Power Co. of Laurens, S. C., last week, some errors of detail were made. The exact facts are that the dam will be about 450 feet long and about 38 feet high, to be erected by Messrs. C. R. Willard & Son of Spartanburg, S. C., to whom the contract has been awarded. There will also be an electric generating and transmitting house built, and the electricity will be transmitted from the dam, located at Boyds Mills on Reedy river, to Laurens for power and lighting purposes. Messrs. Willard & Son are in the market for stone crushers, concrete mixers, steam drills and other smaller machinery needed for the work involved in their contract. The Reedy River Power Co. can be addressed at Laurens, S. C., N. B. Dial of that city being president.

Magnolia Improvements.

[Special Cor. Manufacturers' Record.]

Magnolia, Miss., April 25.

Many of your readers in this section of the country will be interested to know that Magnolia enters upon a new era of prosperity with the issuance of \$25,000 of bonds for the purpose of erecting a modern school building. This was decided upon at an election held on the 8th inst., at which, out of a total of 84 votes, only two were cast against the proposed issue. This brings the total of Magnolia's municipal indebtedness up to \$50,000. The town has an assessed valuation of nearly \$800,000, which does not include the cotton mills here, valued at \$250,000, their period of tax exemption having still one year to run. The actual value of all property here is from \$2,000,000 to \$2,500,000. The school bonds will run for 20 years, bearing 5 per cent. interest.

Wire Cloth and Fence Plant.

Site has been obtained for the proposed plant of the Norfolk Wire Cloth & Fence Manufacturing Co., organized some time ago at Norfolk, Va. The size and character of buildings have not been determined, but it is intended to invest about \$125,000 for buildings and machinery. Wire fence and wire cloth will be manufactured. The company has offices at 34 Plume street. Its president is Paul R. Howard; secretary-treasurer, J. P. Andre Mottu.

The Chamber of Commerce of Clarks-ville, Tenn., is planning an active campaign to induce new factories to locate within its borders.

Industrial Diversification at Winston-Salem.

[Special Correspondence Manufacturers' Record.]

Winston-Salem, N. C., April 25.

In amount of capital invested, in value of manufactured products, in number of hands employed, and in the aggregate of wages paid, Winston-Salem so far outranks any other North Carolina industrial center that, all taken together, the other important cities of the State do not greatly exceed this one community in many of these items, while in the value of manufactured product the Winston output is far and away greater than that of Charlotte, Greensboro, Asheville and Newbern combined.

These rather surprising facts are shown in the census bulletin of 1905, and investigation reveals that they come even much below the showing that actual conditions would make, for in the census reports only Winston proper is included. The basis on which the foregoing comparison is made leaves out a number of very important industries which the twin city of Salem contains. So, while the census figures credit Winston with over \$9,000,000 capital invested in industries (with \$10,000,000 in all the other cities named), it is declared that if the Salem industries and others outside the Winston limits, but an integral part of the development of this community, were reckoned in the total, the aggregate would foot up well on toward \$15,000,000; for in Salem are the long established woolen mills of the Fries Brothers, large cotton mills, foundries, iron works, woodworking establishments, and the old and very extensive wagon works of the Nissens, whose well-built farm wagons of the prairie-schooner type, so popular still in all this region, are sold throughout the Piedmont section from Virginia to Alabama.

What has occurred here seems to have been in the nature of an inevitable development—inevitable because of the spirit of enterprise, energy and thrift which has permeated this entire community always, but which seems to have been spurred on and accentuated by the dire necessities of the people following the desolations of the war and reconstruction; for Winston's development is the product of post-bellum days, and its central figures are for the most part men who came in destitute from the ruined farms when the war had ceased. No greater energy or more dauntless courage were ever shown by any people anywhere, and the forests of smokestacks, the army of workers, the well-built city of today, with its truly magnificent hotel, its splendid business buildings and palatial homes, pay eloquent tribute to the tireless zeal and unceasing enterprise of these men who have made good.

Not heretofore blessed by conspicuously favorable transportation facilities, being only on a branch line of the Southern till reached by another branch line, that now owned by the Norfolk & Western, to Roanoke, it might be somewhat difficult for the superficial observer to discover how it is that Winston-Salem has yet come to be the greatest industrial center in North Carolina, while there are such old established and in every way eligible centers elsewhere, notably Greensboro and Charlotte. Something must doubtless be charged to the curious element of chance which seems to enter every relation of life; for it is chronicled that Greensboro was offered the foundation that built up the tobacco business of both Winston and Durham, before either place had developed far, but refused the co-operation asked because her people were not then alive to the possibilities involved, and in fact were distinctly unfriendly to the proposition to

change the staid and refined old college town into a manufacturing city. This was long before Greensboro woke up and began an industrial development that now places her in the front rank as a cotton-making center. The busy, practical farmer-merchants and manufacturers of Winston then threw all their energy into the development of the tobacco business at Winston, and leaders grew up, real master minds and captains of industry in their line, until there is now one concern here, the R. J. Reynolds Tobacco Co., that has a capital of \$7,500,000, employs from 3000 to 4000 hands, and turns out a manufactured product of 30,000,000 pounds of tobacco a year. Largely through the activities of the Winston houses, North Carolina has passed Kentucky in the value of her tobacco products, and is now crowding Missouri for first place among all the States.

When R. J. Reynolds, himself a farmer's boy and a type of the men who have made Winston, bought out a number of other Winston tobacco factories and made the reorganized R. J. Reynolds Tobacco Company a branch of the American Tobacco Co., there were those who felt that Winston had been hurt; that the elimination of so many individual enterprises would retard the growth of the place. Exactly the contrary has occurred. The R. J. Reynolds Co. is vastly bigger than the old elements were as individual enterprises; those tobacco houses which did not go into the combine are doing better under the regime of steady prices than they ever did before, while every one of the restless men who sold have gone into other lines. Thus, P. H. Hanes, owning one of the big concerns which sold to Reynolds, has established a mill that knits underwear. Being thorough to the core, he has a model plant, turns out goods which are in constant demand as far away as the Pacific coast; 150 of the best kind of hands are employed, some of the girls being graduates from the Salem academy, and others are from the country districts around; he is building on an important addition to his factory; his sons are taking active hold of the management of various departments, and he himself finds time to indulge a longing for the farm life of his boyhood days, so that he is building up a model dairy near the town to meet a never-ending famine in milk and cream which confronts Winston, along with most other cities, North as well as South.

Winston is thus becoming many other kinds of a town than a tobacco center. There are a number of furniture factories; there is a veneer-making plant; the hosiery and knit-goods product of numerous factories is of constantly increasing volume; a shoe factory has been put in operation, and there is just being built a \$350,000 woolen mill that will make blankets. At the head of this company is a young man who has made a remarkable success with such a mill at Elkin, some miles above Winston. It is reported that so excellent is the blanket made that hardly 25 per cent. of the orders received from all over the country can be filled with the present plant, and a career of great success is thus assured for the Winston mill.

Of industrial advantage to Winston in the development of diversified industries is the fact that Salem has always been a place of diversified manufacture. Settled by the Moravians a century and a half ago, it was a co-operative and exclusive community for generations. The work was assigned so that there were enough, but not too many, shoemakers, blacksmiths,

wagon-makers, carpenters, etc., and every individual was engaged in useful toil. This, of course, resulted in the development of a large and varied skill in industrial lines, and besides building up establishments which have prospered and grown great, a population of workers has resulted, to the advantage of the whole community. Winston and Salem are separated by only a narrow side street; but the old spirit of exclusiveness has not entirely disappeared from Salem, the old Moravians and some of the younger generation as well still adhering to a strong pride of race and sect. Gentle, sober, deeply religious, frugal, thrifty, but never grown sordid or money mad; born musicians, nearly all of them, and so devoted to refinements and ennobling influences that the Salem academy, more than 100 years old, and almost the first college for women and children in the land, has had on its roster the young women of the finest families of both North and South. It is easy to account for a reluctance to surrender the outward forms of distinction. So Salem has so far remained a separate municipality and until recent years was even allowed a separate post-office. Now, however, the Government has furthered the consolidation plan by abolishing the Salem postoffice, and it is all one to the railroads and express companies as well. Sooner or later the corporations must merge, giving Winston-Salem a legal corporate name and a single corporate existence, and then the student of census returns will be able to more readily comprehend the extent of the industrial development that the community contains.

While railroad transportation lines have not been all that could be desired for a town that ships much the largest freight tonnage of any city in the State, the developments of recent years have made further lines a certainty. More than 15 years ago a number of local capitalists started to build a line of road from Roanoke, Va., to Wadesboro, N. C. This line, passing through Winston-Salem, would have directly connected the Norfolk & Western with the Southern, Atlantic Coast Line and Seaboard Air Line, the four existing trunk lines of the South Atlantic Seaboard. The line was built between Roanoke and Winston, but the tight times following 1893 prevented further construction, and the existing line passed into the hands of the Norfolk & Western. Within recent years the project to extend the road to Wadesboro has been revived, and under the name of the Winston-Salem Southbound Railway Co. a number of the leading business men of Winston-Salem and points along the proposed route have incorporated and begun the construction of the road, with Capt. Cornell of New York as engineer-in-chief. The survey has been perfected and a grade established with a maximum of 6-10 of 1 per cent. going south, and one per cent. coming north. A portion of the route has been cross-sectioned, and a short portion, near Winston-Salem, has been graded. The rights of way, including large terminal and trackage room, have generally been deeded to the company, there being but a few cases where court proceedings were necessary. Municipalities along the line have voted \$350,000. The company has expended \$200,000 to date, and expects to build one of the best railroads in the South, the purpose being to create a great coal carrier, which would receive tonnage from the Norfolk & Western and Pennsylvania railroads in the North, and deliver it probably to the Atlantic Coast Line, which has a direct line from Wadesboro to Charleston. The road crosses the Southern at Lexington, an important industrial city, and again

touches it at the new town of Whitney, and at Albemarle and Norwood. The distance between Winston-Salem and Wadesboro is 87 miles. It is declared that the road will be pushed to construction as rapidly as conditions will warrant, and that when finished it will be not only a great coal carrier, but will form a link in the shortest and most direct line for travel between the North and the South.

The completion of this line, connecting for the first time all the systems in the State, is counted on to very largely stimulate the growth of Winston-Salem.

Besides this enterprise there are a number of other projected lines that when carried out would make this a railroad center of the finest class. There are several plans for railroad construction in Western North Carolina that would open a new territory in that direction, and there is talk of connections toward the south that would be of advantage.

Mr. Dee Allen, lately of Michigan, but now of High Point, and who is said to have strong financial backing, proposes to extend his Carolina Valley Railway to Winston-Salem. In operation now between Thomasville and Denton, this road is to be built, according to the announced plans, to a connection with the Atlantic Coast Line and Seaboard Air Line at Wadesboro and Rockingham.

Undoubtedly the rapid development of North Carolina in industrial lines will cause the construction of a number of new roads and extensions as soon as "railroad money" is more easily obtainable, and Winston-Salem has promise of everything in this line that her development will require.

There are numerous lines on which Winston-Salem can logically increase industrially, and in cotton, wool, wood and tobacco a great expansion is assured. A well organized and active Board of Trade is disseminating literature and engaging in other endeavors calculated to extend the fame of Winston-Salem as a city of opportunities. Much has occurred since I used to write of the possibilities of industrial expansion here, back in the early nineties, and surely the greatest enthusiasm could hardly have hoped for more than is found here today. Based on what has been done, though, and bearing in mind that the whole South has merely just begun to catch the stride; considering that the North Carolinians are proverbially the Yankees of the South, and that nowhere are there harder workers, more persistent, enterprising and thrifty than here, I believe the Winston-Salem of the next 15 years—of 1922—will have two of three times its present population of 25,000, and will be one of the busiest industrial centers in the Piedmont belt. A splendid start has certainly been made, and it has every sign of the permanency that endures and gathers size and momentum as it goes. ALBERT PHENIX.

Sand Mountain Electric Co.

A water-power electrical enterprise of the past week is that of the Sand Mountain Electrical Co., which has been incorporated with a capital stock of \$50,000 and intends to issue bonds for \$50,000. This company plans to develop from 500 to 1000 horse-power on Short Creek near Albertville, Ala., and transmit electricity for lighting and power purposes to Albertville, Guntersville and Boaz. The company has acquired the necessary lands and privileges necessary for its developments, and is now prepared to engage engineers to make the complete surveys required. It has organized with Edgar O. McCord of Albertville as president and G. M. E. Mann of Boaz, Ala. as secretary. Correspondence should be addressed to the president.

IRON DEVELOPMENTS IN EAST TEXAS.

[Special Correspondence Manufacturers' Record.]

Rusk, Texas, April 27.

In a letter to the MANUFACTURERS' RECORD published in your issue of February 14 last your correspondent endeavored to give a brief outline of the history of the developments in the iron industry in East Texas up to and including the beginning of the present year. In this letter I will give the further developments, both present and prospective, together with a further detail as to the vast value of the Texas ore deposits.

During May, 1906, W. H. Oatley, formerly of Springfield, Mass., purchased what is here known as the Star & Crescent furnace property, together with a considerable body of iron-ore land. This furnace is situated within the corporate limits of the town of Rusk, Cherokee county, and is in the very center of the East Texas iron-ore field. The furnace was built in 1891, run for a short time only, and when the general financial smash-up of 1902 came the company failed, the property was thrown in the hands of the courts, where it remained until 1905, when the title was cleared up, but was not put in blast again until recently.

When the Sam Lanham furnace was built and put in operation here last year its splendid work attracted a great deal of attention from iron men, and it soon became known that this is one of the big dividend-earning propositions of the country. While it was built for a 50-ton furnace, it was soon discovered that it was turning out from 100 to 120 tons a day, and that of a superior grade of No. 2 foundry iron. This was due in part to the high percentage of iron carried by this ore, and in part to good management, as well as to the character of the plant itself. That furnace is equipped with three Whitwell ovens, two blowing engines and every accessory necessary to make it a strictly up-to-date furnace.

In connection with the Sam Lanham furnace is a pipe foundry with three pits, from which is turned out a high grade of water and sewer pipe. Their water pipe stands a test of 300 pounds to the square inch, and yields 90 to 96 per cent. perfect stock. What better demonstration of the value of this iron could be wished?

With this splendid object-lesson before them, it was an easy matter for Mr. Oatley and associates to organize a company, which they did, taking out a charter under the laws of Texas, with a capital of \$250,000, and now have their furnace in operation. A meeting of their stockholders was held at their office here recently, at which three additional directors were elected, as follows: E. P. Yates and F. W. Arnold, both of Hartford, Conn., and W. Frank Knox of Tyler, Texas. Mr. Yates was also elected to the office of vice-president, made vacant by the resignation of Amos Mitchell, whose extensive interests in the Beaumont, Texas, oil field renders it impossible for him to give the time required of the man filling that position.

Many and varied improvements were discussed at this stockholders' meeting, and the management was given a free hand and ample financial backing to carry out the same. One important improvement is already being carried out; that is, the installation of an electric-light plant. They also contemplate putting heavier iron and a larger engine on their ore-bed road, constructing another large reservoir near the furnace, and ultimately will put in Whitwell hot-blast stoves in place of the old-fashioned ones now in use. Other improvements will be added from time to time until this becomes a strictly modern 100-ton furnace.

The question of fuel having been solved by the adoption of coke in place of charcoal at the Sam Lanham furnace, the experimental stage of the iron business has therefore been passed, and that without any cost to the Star & Crescent people.

The question of transportation has, however, been one of more or less difficulty, but is now about to be solved by the building of a branch road from here to the Texas & New Orleans Railroad, several miles distant, and another to Palestine, where it will connect with the International & Great Northern, thus giving Rusk three systems and place the iron industry on a more independent basis.

The character of the men backing this enterprise is one of the most gratifying features about it, for it is doubtful if there is another enterprise in the Southwest of equal magnitude having a more representative set of business men at the helm than has the Rusk Iron Co.

W. H. Oatley, its president, formerly from Springfield, Mass., but recently identified with the oil business of Beaumont, Texas, where he spent five years and made a snug fortune, which he invested in the iron business here. Vice-President E. P. Yates is a man of considerable wealth, being largely interested in Hartford, Conn., real estate, also in the wholesale grain business, being a large stockholder and also treasurer of both the L. C. Daniels Grain Co. and the Metropolitan Storage & Transfer Co., both of Hartford, Conn.

F. W. Arnold, one of the directors of the Rusk Iron Co., another of Hartford's prominent and wealthy business men, is president of the Trout-Brook Ice & Feed Co. of that city, a stockholder in a number of other wealthy corporations of the same city, and is one of the most enthusiastic and earnest believers in the great value of his East Texas properties.

L. C. Daniels, another large stockholder of the Rusk Iron Co., is another wealthy Hartford business man, being president of the L. C. Daniels Wholesale Grain Co.

Amos Mitchell is a wealthy oil man of Beaumont, Texas.

The Reckord brothers are from near Pittsburg, Pa., and went West a few years ago, made quite a little fortune in the copper mines, sold out their interests there and invested it in the Star & Crescent property here.

W. Frank Knox is one of Texas' leading corporation lawyers, and also a heavy stockholder in the Tyler (Texas) Water-Works Co., while J. S. Wightman, now and for the past 10 or 12 years cashier of the First National Bank of Rusk. With such men as these to guide its affairs, it is not unreasonable to anticipate a prosperous future for this enterprise.

Two members of the Rusk Iron Co., namely, Messrs. Arnold and Yates, have purchased the New Birmingham properties, consisting of furnace, pipe works, 7000 acres of iron-ore land, 8000 acres of virgin pine lands, a \$50,000 hotel, together with all unsold town lots in the old town of New Birmingham. Their purpose is to organize another company, rehabilitate and modernize the furnace and pipe works, making the furnace a 100-ton plant, add a rolling mill, cotton-tie factory and erect a sawmill to convert their timber into lumber. If these gentlemen succeed in carrying into effect these plans it means much for the benefit of Texas and much other territory contiguous thereto. The raw material is here for carrying on a great industry, and which, if carried on a scale approximating that outlined by

Messrs. Arnold and Yates, it means not only the employment ultimately of thousands of skilled laborers, but a vast saving of money to the people of this section. Not only that, but it will contribute materially to the development of this section by supplying the various products of iron which enter so largely into the enterprises of a section of country as comparatively new as this. For it must be remembered that these gentlemen's holdings of iron-ore lands is by no means all there is in East Texas. Another Eastern syndicate purchased recently 500 acres of exceedingly rich iron ore situated about three miles north of here, upon which they contemplate building a 100-ton furnace in the near future. It is no exaggeration to say that there is enough ore within a radius of 10 miles of Rusk to run 50 furnaces of equal capacity for 100 years. To give the reader an idea of the extent of these ores,

it is only necessary to say that the thickness of the veins range from 18 inches to 4 feet. Now, if we take the holdings of Messrs. Arnold and Yates alone, we may gather some idea of their enormous value.

A wholesale dealer in wrought iron remarked recently that there is enough iron brought to Texas every year to keep ten 100-ton furnaces going 300 days out of every 12 months. Then take the cotton-tie business: Last year nearly \$2,000,000 was sent out of the State for that product alone. Texas cities are growing very rapidly, and necessarily are requiring an amount of structural iron which is fast increasing.

All these things tend to create an increasing demand for the varied products of iron, and the men who put themselves in a position to meet and supply this demand will reap a rich harvest.

W. C. CLOYD.

THE TEXTILE SCHOOL A NECESSITY.*

By EDWARD W. FRANCE, Philadelphia, Pa.

The textile industry of the United States has for the past year or two been passing through an experience the like of which has never before been witnessed in this country. I refer to the great scarcity of artisan labor spinners, weavers and machine tenders in general. The cotton mills of our Southern States are perhaps more severely affected by this scarcity than those in the Northern States, although there is a considerable scarcity of manual labor in all classes of industrial work, but the cotton mills in general, North and South, have suffered more, perhaps, than either the wool or silk. Cotton mills, as a rule, depend more on cheaper labor than wool or silk mills, made possible partly by the automatic and semi-automatic machinery now in use, and when times are prosperous, such as the present, this cheaper labor is naturally the first drawn upon by the higher-paid industry, no matter what its kind. The former employers of this cheaper labor have no other source from which to replenish their supply than that which comes from the increase through immigration. To such an extent has this been going on in the last few years that it is now apparently necessary to post mill notices in no less than six foreign languages in some of our textile centers.

The speaker can well remember the time when a large majority of textile mill operatives in and around the cities of Lowell and Lawrence, Mass., were of American birth, the balance being English, Irish, German and French Canadians, the latter, however, being in the minority. From this source, and this source alone, it was then customary to recruit the mill managers, etc., and from sheer force of fitness many of the best mill managers and superintendents we have today were recruited from the ranks of the men just mentioned. But this has now all changed; a new era has arrived; the sons and daughters of these former mill operatives are not following the footsteps of their parents, and are to be found in almost any other vocation rather than that of textile manufacturer or producing end of the work, and their places are now filled, as before mentioned, largely by foreigners. The cotton mills of such cities as Fall River and New Bedford, which are strictly cotton-manufacturing centers, are fast filling up with Portuguese, Russian Jews, Armenians and other foreign races. Now, labor of the kind just mentioned is not of the so-called educated class; in fact, many of them have had practically no education, none have

had mill training, and while they can be taught to perform the various functions of machine tending, they cannot without further education and the facilities to study the underlying principles of the machine be expected to do or become any more than a part of the machine itself. They have no elasticity or interchangeability.

Our modern factory system does not permit of a schooling along this line. The keen competition of the day demands that the efforts of every employee shall be concentrated to the part of the work he or she was engaged to perform, leaving no opportunity for an acquaintance with preceding or succeeding operations. The tendency of all this is to lessen the value of the men in relation to the product he is able to produce. It can thus be seen that through invention the more automatic the modern machine becomes the less important the machine tender becomes, and the vastly more important the man above the machine tender must necessarily be. The opportunity of this individual, therefore, has grown with the complexity of the machine. So much so has this become a fact that as the improvements in textile machinery have progressed there has been a constantly growing tendency among textile manufacturers to divide all their labor into two great classes—machine tenders and directors of machine tenders. These latter are intended to include the designers, dyers, assistant superintendents and managers. Upon the shoulders of these men depend the quality and quantity of the product produced. Now it will readily be seen that unless these men (the directors of the machine tenders) have a thoroughly practical knowledge, including all the possibilities, as well as the limitations of the machines over which they have control and a fair working knowledge of preceding and succeeding operations, the results in the product will be poor and unattractive. On the other hand, if the abilities of these men are of the proper kind we may naturally expect a reflection of this ability in the results produced, and consequently a product of the highest order should be attained.

Textile manufacturing in this country has reached enormous proportions. I am aware that we have among our mills some of the largest and best equipped in the world, but at the same time I am almost persuaded that there are many not as intelligently managed as they should be, and very many where thought is expressed only in imitation of the artistic product of some more ably conducted and progressive competitors. This weakness is most noticeable in the preparation of raw materials, in

*From a report before the National Association of Cotton Manufacturers.

design and color, in dyeing, printing and finishing, and unusually we find hand in hand with them a great lack of economic method.

To correct these conditions is, or should be, the work of the kind of textile school I have in mind. To me textile education means the embodiment of all instruction which may be practically included in the requirements of a good, slightly and salable article, whether it be in cotton, wool, worsted or silk. Beyond this it is needless to go. What we want to teach in our textile schools is exactly what the apprentice should be taught in the mill—to do actual things—to produce actual stuffs. Hand in hand with this instruction must go all necessary information required for these productions from the raw to the finished state, not omitting a thorough training along the artistic as well as the commercial side, which stands for the money value of the products produced. Less than this will not supply the needed ability that the various branches of the textile industry demand; to attempt more would be to cut down the time actually needed to fulfill the above requirements. Textile schools, again, should be divided in two classes, higher and lower schools. The higher school for the training of those who aspire to positions of responsibility, such as designers, managers, superintendents, stylists, salesmen, etc., whereas the work of the lower or primary schools should be devoted to the training of the man behind the machine, who must be helped and inspired before anything like a fine or high performance is to be expected from him. Indeed, this latter training is quite as urgent as that of the former, and to fail to make proper provision for it is to miss the chance of accomplishing one of the main purposes for which all technical and industrial schools should stand.

Arranging Seaboard's Exhibit.

Mr. C. B. Ryan, general passenger agent Seaboard Air Line Railway, has issued to ticket agents and passenger representatives of the company a circular, as follows:

"For exhibition purposes at the Jamestown Exposition the Seaboard Air Line has engaged section eight, located within the States' Exhibit Palace, containing 1600 square feet. The space will be enclosed by a series of arches and the columns will be covered with grain rice and the upper portion decorated attractively with natural products, such as tobacco, cotton, corn, rice in the straw. The interior will be finished in green. The company has gone to considerable expense in its efforts to produce an attractive design for the enclosure and interior. The long period over which the exposition extends necessitates nearly all of the exhibits being covered by glass, and for this purpose showcases of suitable designs will be used.

"As the Seaboard has no fixed exhibit, it is necessary to collect one, and it is the effort of the officers to get away from the stereotyped form. In doing this it has been decided to show the resources in their various forms of completion into finished articles. Cotton will begin with the boll and be followed by the bale, the yarn, sheeting, lawns, prints and all other forms of manufacture. From the seed will be shown its by-products, such as oil, cake, meal, foots, hulls, compound lards, soap, high grades of refined edibles and other forms. Sea Island cotton and its products will also be displayed.

"In making an exhibit of woods the company will use the trunks of trees as well as the polished planks. From the territory contiguous to the Atlanta & Birmingham line there will be shown a fine and varied line of minerals. Florida products will be in evidence in the shape of

fruits, vegetables of all kinds and rare tropical and subtropical plants. An exhibit of sponges will be made, this industry being carried on extensively at Cedar Keys. The Seaboard Air Line officers have also arranged for an interesting collection of Sumatra leaf tobacco produced in the hill country of Florida. This leaf in its various forms, including whole plants as they grow under shade, will be displayed."

IN THE TEXAS RICE BELT.

Elevators and Warehouses Are Proposed.

An interesting announcement in connection with the development of the rice growing resources of the State of Texas was made at Houston last week. It comprises the statement that C. W. Hoyt of Kansas City Mo., representing capitalists of his city and Chicago, is conferring with the Texas Rice Farmers' Association relative to the establishment of a chain of rice elevators and warehouses. In mentioning the proposed enterprise the *Houston Post* says in part: "Mr. Hoyt stated that the proposition met with a great deal of encouragement. It is proposed to erect the elevators and warehouses along the same lines adopted by the Farmers' Union in the erection of cotton warehouses. The farmers, merchants and bankers will subscribe for the stock and the company will put in the warehouse. It is proposed to expend something like \$500,000 in the construction of these warehouses and elevators before the harvest time of this season's crop.

"In this connection Mr. Hoyt gave some interesting figures. He states that the saving to the rice farmers during one season will bear the expense—in other words, that the saving from one crop alone will amount to \$500,000.

"It is estimated that the crop this year will be 2,000,000 bags. The bags cost about 12 cents, and bags can be done away with when the elevator is installed. Then there is a waste in handling in the bags. It is estimated that the waste and the cost of the bags combined will amount to 25 cents per bag. This amounts to \$500,000 on a crop of 2,000,000 bags.

"It is proposed to establish a chain of elevators in the heart of the rice farming districts first, and afterwards to establish a large central elevator on the Houston ship channel. Negotiations have been under way for the site for the central elevator. It is inside the city limits and near the site for the large rice mill and warehouse upon which work will soon be begun."

North Carolina Ruby Mine.

Mr. Alfred H. Smith of A. H. Smith & Co., New York city, confirms in a telegram to the MANUFACTURERS' RECORD the report of extensive operations in Macon county, North Carolina, in the development of a ruby mine by the United States Ruby Mining Co., capitalized at \$5,000,000. For 11 years a systematic search has been made on the property, consisting of 2500 acres along the fork of Cowee creek, a branch of the Little Tennessee river, by experts, and a few weeks ago was discovered what the owners call a "matrix," or collective deposit, of rubies, which in color and quality are equal to the product of the famous ruby field of Burmah, India. Connected with the company are some of the leading mining operators and business men of the country, including David H. Moffat, a mine owner of Denver; E. C. Converse of the United States Steel Co., John S. Lyle of Lord & Taylor, Francis H. Leggett, Robert Olyphant, Alfred H. Smith, Harrison B. Smith, A. K. Sloan, John H. McAnerney, J. Howard Ford of the United States Rubber Co.,

Charles Curie, George F. Dominick, H. B. Dominick, Paul A. Fusz, president of the American Gem Syndicate of St. Louis, and others equally well known in the business and financial world.

To Improve the Arkansas.

The Board of Trade of Little Rock, Ark., recently submitted to Government engineers a report giving reasons and data looking to the improvement of the Arkansas river. The following extract taken from the report shows the possibilities of this improvement:

"Of the 181,013 bales of cotton received last season only 47 were received by boat. The receipts of corn were 4,293,000 bushels, oats 1,554,000 bushels and wheat 291,000 bushels, and not a bushel by river. Of the 80,000 carloads of local freight not a car was river freight.

"Our merchants are complaining of delay—delay in receiving shipments from the East, and still greater delay in forwarding goods from this city to customers throughout the State. The railroads are doing their best to overcome disastrous conditions, but the development of the State has exceeded the facilities of the transportation lines. For weeks at a time industrial plants have been without cars, and in some instances have been compelled to close their establishments for indefinite periods. They are doubtless aware Little Rock is situated on the dividing line between the alluvial lands stretching away to the Mississippi river and the hills and mountains of the Ozarks extending hundreds of miles to the west. Here, with a navigable river, transportation would be sought by the raw products of the soil, as well as of the mine, and the mills of the neighboring sections would give to barges their export staves and lumber, and the mines their shipments of coal, bauxite, etc., while the quarries of this city would be able to ship building stone and crushed rock to the cities of the South and East, where stone is in constant demand."

Establishing Industries.

[Special Cor. Manufacturers' Record.]
Hot Springs, N. C., April 25.

It is proposed to establish canning and furniture factories here. The abundance of raw materials close at hand and the nearness to good markets, transportation facilities, fine water-powers, glorious climate and the co-operation of the business people insure success from the start. Half of the capital is already subscribed, and it is said a practical man will supply the other half and that these factories are a certainty.

The climate is unexcelled. The valuable hot-water and mineral springs to be found here, in addition to the great supply of pure drinking water, insure good health the year round.

A number of valuable minerals are found here, among them a fine grade of iron ore, also barytes, which is being mined and shipped. It is stated on good authority that cinnabar ore has been discovered near this place, and as cinnabar is almost always found near hot springs, the report is believed to be correct. There is no doubt about copper ores being found in abundance, as well as zinc, tin and lead. There are surface indications of coal here, but no pure samples of coal have ever been found.

Any information regarding the canning factory or the furniture factory may be obtained by addressing Benjamin Sams.

In connection with the meeting of the Texas Bankers' Association in Corpus Christi it is planned to devote May 29 to a discussion of waterways. Hon. Joseph E. Ransdell of Louisiana, president of the National Rivers and Harbors Congress, will deliver an address on waterway im-

provements, and a number of other speakers, including several Texas congressmen, will talk along the same line.

Raleigh.

Finely situated 305 feet above the sea level, and having a healthy climate and with an abundant water supply and thorough sewerage system, Raleigh, N. C., offers an excellent location for those seeking new homes. The city, which is located in Wake county, is surrounded by a rich agricultural region which possesses a wide variety of vegetation. The population of Raleigh numbers 20,000, and the city covers an area of one and three-quarter square miles, has 50 miles of water-mains, 65 miles of streets, 5 miles of which are paved and 15 miles macadamized.

Raleigh is well supplied with varied manufacturing industries to the number of 33, the most important of which are six cotton and knitting mills valued at over \$1,000,000 and having an annual payroll of \$250,000, fertilizer plant valued at \$150,000 and having an output of \$500,000 annually, cotton-seed oil mill valued at \$75,000 and having an output of 350,000 gallons of oil, 4000 tons of meal and 2000 tons of hulls annually, seven printing plants valued at \$150,000, two large leaf tobacco warehouses with annual sales of 3,000,000 pounds, two iron works, five lumber plants, two woodworking plants and other miscellaneous industries, including electric light and power plants, ice plants, bottling works, gas plant, telephone companies and brick plants.

Four railroad lines enter Raleigh. These are the Seaboard Air Line, the Southern Railway, Raleigh & Southport Railway and Raleigh & Pamlico Sound Railway. The Seaboard Air Line has here large construction and repair shops and freight warehouses valued at \$500,000 and employing about 500 men with a weekly payroll of \$6250.

The financial institutions of Raleigh, seven in number, have a combined capital of \$445,000, surplus \$261,000, deposits \$3,550,758 and resources \$4,592,000, while bank clearances amount to \$2,159,275. Two insurance companies, one fire and one life, are also located here, and these have a combined capital of \$251,500, reserve of \$85,000 and assets of \$324,000.

Raleigh has 12 public school buildings valued at \$80,000, and these have an average attendance of 2000 pupils, while there are 13 other schools and colleges with buildings valued at over \$1,000,000 and having an attendance of 3000 pupils.

This interesting data setting forth what Raleigh possesses and is doing today was taken from a booklet compiled and published by the Chamber of Commerce of that city. The president of this body is Mr. Joseph G. Brown and the secretary Mr. F. A. Olds, either of whom will furnish any information wanted by outsiders who are looking for an advantageous location in the South.

Heavy Demand for Locomotives.

A suggestion of the general activity of railroad traffic in the South is contained in an item in the Denison (Texas) *Herald* of April 20, which refers to the Missouri, Kansas & Texas Railway as follows:

"During 24 hours ended at 7 P. M. Thursday, an engine was furnished for a Katy train on an average of every 20 minutes. These were locomotives for outgoing trains only. The Katy shops here are being run at full capacity in order to keep the engines in service, but they are practically overwhelmed. The facilities for repair work are limited, and it is impossible to supply all of the locomotives that are needed."

CURRENT EVENTS AS VIEWED BY OTHERS

DEMANDS FOR RAILROAD SERVICE.

[From a Speech by Vice-President W. C. Brown of the New York Central Railroad.]

In the month of March the New York Central proper handled 602,898 loaded cars, which was the heaviest movement of any month in the history of the road, and exceeded the movement of March, 1906, by more than 50,000 loads.

Up to and including the 17th, the loaded cars handled by the New York Central this month shows an increase over the same period of April, 1906, of more than 84,000.

Notwithstanding the fact that the New York Central lines and almost all other railroads in the country are moving a vastly greater tonnage than ever before in their history, there never was a time since railroads have existed, or before, when there was as much freight waiting transportation, and almost valueless without transportation, as there is today.

The reason for this condition is that the tremendous commercial activity of the past three years could not have been foreseen. It came as a surprise to the farmer, the merchant, the manufacturer and the railroads; and, added to the physical impossibility of providing adequate transportation facilities in so short a time for this sudden and tremendous increase in business, was the fact that almost every other avenue of investment offered a higher as well as more certain return than could be hoped for from money invested in railroads.

With the exception of the railroads in the extreme north and northwest, where climatic conditions have limited their ability to handle business, freight has been handled in larger volumes than ever in the history of the roads; and, notwithstanding this fact, great manufacturing concerns all over the country have been embarrassed by the inability of the railroads to furnish fuel and raw material on the one hand; and their loading platforms have been filled with finished product that has been sold and the delivery of which is urgently demanded by consignees, but which the railroads have been unable to handle.

Further and more serious than this is the fact that the elevators in Chicago and all the great trade centers of the West, and local elevators throughout the great grain-growing States, are filled with grain of last year's crop, which, unless moved within a very short time, on account of climatic conditions, will be very greatly impaired in value.

The shortage of cars for export freight is not confined to grain or its products. Through the month of January and a large part of February, the International Harvester Co. was short 200 cars for export loading. The same condition applied to factory, farm, and mine and to every State in the Union.

It is not entirely a question of cars and engines. If the roads could at once provide themselves with ample power and freight equipment they would be immediately confronted by the inability to move the freight over their roads or to handle it at seaboard terminals.

Real estate in New York, Boston, Philadelphia, Baltimore and other Atlantic port terminals costs almost as much per square foot at the present time as it did per acre at the time the original terminal facilities were provided, and adequate facilities can only be provided by the expenditure of millions of new money.

In every great manufacturing center

vast additions are being made to manufacturing plants. At the south end of Lake Michigan more than \$100,000,000 is being spent this year in erecting great steel plants, rolling mills, car manufacturing plants, etc., all of which will add to the already tremendous freight tonnage which the past year has demonstrated beyond any question of doubt the present railroad facilities are utterly inadequate to handle.

So far as the lines of the New York Central are concerned, the inability to handle current traffic is not due to negligence in at least attempting to provide itself with necessary power and equipment.

These conditions which confront railroads are enough seriously to check the investment of money in new roads or in the great improvements in existing roads that must be made with the least possible delay unless the development of the resources of the country, and the extension of its trade, both domestic and foreign, is to receive a very serious check; but worse, perhaps, than its effect on the actual conditions referred to is the fact that out of a wise and timely effort of the President to correct grave evils and abuses, has grown a storm of extreme hostility and indiscriminate agitation against railroads, which has resulted in the enactment of much unjust and hurtful legislation in many States, and which has almost destroyed the credit of the railroads, both at home and abroad.

If the development and extension of the nation is to go on, if the progress made during the last 10 years may be accepted as in any respect a measure of progress to be made during the coming decade, almost as much money will have to be expended in increasing the facilities of existing railroads and in building additional railroads as has been expended during the 80 years since the beginning of the construction of railroads in the United States.

Unless assurance can be had—not of condoning wrongdoing, or winking at abuses—but of friendly co-operation, of protection and aid in every fair and legitimate manner against oppression and injustice; of such guarantee as the Government can give of protection from legislation which will prevent earning a reasonable return on money invested, and a fair participation in increased values and general prosperity which investments of this character aid in promoting, it is going to be impossible for the railroads to obtain the money necessary for such improvements and extensions.

Hundreds of millions of dollars worth of necessary improvements have been stopped, and will not be undertaken until a restoration of confidence can be had, which will make it possible to float large issues of railroad securities, both at home and abroad. For the purpose of securing this necessary restoration of confidence, it seems to me the great business interests of the country should unite with the railroads in an appeal for a cessation of agitation looking to the enactment of future restrictive legislation until these great interests, mutually interested as they are in the prosperity and development of the resources of the nation, can adjust themselves to these new conditions.

SCHOOLS AND VAGRANTS.

[Columbus (Ga.) Enquirer-Sun.]

The Southern States have expended millions of dollars in their efforts to edu-

cate the negro. Georgia alone spends thousands of dollars annually for this purpose. Yet, even to those who believe that the education of the negro is a necessity, the results have been far from satisfactory or promising. There are more idle, vagrant negroes in Georgia today than ever before, though the demand for their labor is unprecedented. The negro child who goes to school from surroundings in which vagrancy and viciousness predominate has little prospect of putting to good uses any learning that it may acquire, and, until the authorities of the law apprehend and punish the vagrants, a large portion of the money expended upon the education of the negro youths will be wasted, necessarily.

SOUTH'S INDUSTRIAL PROGRESS.

[Wall Street Journal.]

People who are interested in the progress which Southern industries are making will have an opportunity to observe the results at the Jamestown Exposition. The thing which will surprise most people is the great variety of products which the establishments of these agricultural States are now putting upon the market.

Many of these products a dozen years ago were made in the Northern, Eastern or Western States and shipped into Southern markets. Now this process is reversed, not only in textile industries, but also in woodworking manufactures. The Southern States are not only supplying their own needs but are furnishing many of the densely populated sections of the rest of the country with all that the capacity of their establishments permit.

It will be illuminating to the investing world to spend some time among these exhibits in order to catch up with the procession and realize that something has been accomplished other than in textile manufactures.

BARKED UP A WRONG TREE.

[Brooklyn (N. Y.) Daily Eagle.]

It took a Chicago jury about two hours to bring in a verdict of guilty against the Standard Oil Co., charged with having sent oil from Whiting, Ind. to East St. Louis, at six cents a hundred, the legal rate being 18. There was one indictment, but many counts—1463. For each offense, otherwise called a count, a fine must be imposed. When sentence has been pronounced the company may find \$29,260,000 added to its list of contingent liabilities. There is a large margin, however, between maximum and minimum, \$1,463,000 being the lowest figure at which the trial judge can mulct the corporation. His honor specifically charged that the jury must find intent on the part of the defendant to violate the law.

Naturally, the verdict was hailed as a signal victory for the people. Culpability, not to say criminality, is assumed as a matter of course, when the defendant happens to be a great corporation, which is held to be synonymous with a grinding monopoly. Still, the fact remains that law is not presumed to differentiate, that it is protective as well as punitive, that it is defensive as well as offensive. Also, the fact remains that injustice can be done to none without peril to all, rich and poor alike being in the same boat. And there are facts in the case against the Standard Oil Co. account of which can well be taken.

There is railroad competition between the points alluded to above. The Chicago & Alton asked for part of the Standard

Oil business, offering transportation at prevailing rates, six cents a hundred. The offer was accepted and the business divided. It appears, however, that the Chicago & Alton was a reorganized road and that its predecessor had published 18 cents a hundred as its oil rate. It also appears that this rate had gone into desuetude, being superseded in everything but the matter of publication, which little legal formality had been overlooked. Armed with this technicality, the Government invoked the pains and penalties of law.

Statutes have been described as common sense crystallized. The defendant diverted to the Chicago & Alton part of the patronage two other roads enjoyed. As no other manufacturer ships oil between the points, there could, of course, be no effort to grind a competitor. And as neither more nor less was paid to one line than to each of the two others, it was a clear case of share and share alike as far as the carrying corporations were concerned. So, nothing can be clearer than that there was no motive for violating law, the one thing clear being the absence of inducement. Nor, finally, could any harm come to the consumer, the company's rule being to make the selling price plus the freight.

For what, therefore, is the company to be fined? Certainly not for restraining trade, because there was no competition. Certainly not for aiding and abetting a railroad monopoly, because it distributed its patronage. Certainly not for conspiring and plotting to rob the consumer, because the aforesaid distribution cost him nothing. As a matter of fact, damage was done to literally nobody, neither public nor private interests being either injured or menaced. The head and front of the company's offending is that it did not pay a rate not only obsolete, but ridiculous. It only remains to be added that it is not more ridiculous than the law which, in such circumstances, is carried to enforcement. As to the Government lawyers, they were barking up the wrong tree.

EXPORT GRAIN INSPECTION.

[New Orleans (La.) Times-Democrat.]

The New Orleans Board of Trade has taken the initiative in settling the differences which have arisen between American shippers of grain and European grain dealers. The settlement has nothing to do with the recent charges of heated grain from the Gulf ports, as these have been thoroughly disposed of and it has been shown that the climate has nothing to do with any damage to grain shipments from Gulf ports; but it deals with a problem which effects the entire country. There have been numerous complaints from Europe for several years past to the effect that American wheat, corn and other cereals reaching there were not of the character or grade they purported to be, and that the grades differed in the several ports of shipment.

It has been obvious for some time that it would be necessary for us to correct this deficiency if we wish to hold the European trade. This, of course, necessitates the adoption of uniform rules for grading and inspecting that will apply to every grain port in the United States. The Board of Trade proposes that this be done by the reorganization of an "Export Grain Exchange International Association," which will adopt all the rules necessary to assure uniformity. The New York, Philadelphia, Baltimore, Boston, Portland,

Norfolk, Newport News, Charleston, Savannah, Mobile and Galveston Boards of Trade and exchanges have all been written to and asked to send delegates to a convention to be held in June—New Orleans being suggested as a good place for the meeting—which will pass on the following points:

1. Uniform rules for the grading of export grain.

2. A time for the adoption of a standard sample, not to be changed during the crop year.

3. Measures for the enforcement of the rules and standards by the various export ports.

The subject is one which interests all the ports, and one that will have to be acted on shortly. The Board of Trade has shown how the difficulty can and ought to be settled, and we trust that its plan of settlement will be accepted and acted on.

KENTUCKY OIL.

[Louisville (Ky.) *Courier-Journal*.]

The oil development in Kentucky, while not marked with speculative features and the excitement which attends discovery of new fields or the bringing in of high-yielding new wells, is full of promise for the future. There are two main fields, coinciding practically with the two coal districts, the eastern and the western, the former having an area of nearly 12,000 and the latter of 4400 square miles. It is, however, within and upon the borders of the former that the chief product is obtained. The output of Kentucky for 1905, as shown by the last report of the United States Geological Survey, was 1,200,973 barrels, being an increase of 205,214 barrels over that of 1904. This development has led to the construction of a pipe line from the Wayne county oil field, near the Tennessee line, south-east of Louisville, to Parkersburg, W. Va., where the oil is refined. This disposition of the product by this means has tended in a great degree to remove from public observation the evidences of such development and traffic as would be made more manifest if the oil were transported to market in barrels or tanks, and refined in this State instead of another. Not all of the oil is diverted thus, however, as there is a prosperous refinery near Georgetown, with a capacity for 1000 barrels per day, where oil from the Wayne field is refined and numerous by-products prepared for market. Farther eastward, in Knox county, and extending northward near the rim of the Blue-grass counties, oil of good quality is produced, while indications are favorable for much greater productiveness still further eastward, but at much-increased depth.

In the southern part of the State the two fields approach each other into an almost continuous oil belt, including parts of Clinton, Barren, Warren and Logan, although the latter are in the experimental stage. The latest discovery is in Logan county, which may be referred distinctively to the western field, the county lying on its southern border. There is every reason to expect that this field will in time prove a very productive one. The Geological Survey had begun a thorough examination of it and developed many evidences of ultimate success in proving its richness when the survey was suspended in 1892, and since its revival, three years ago, it has had so much of other work needing attention that the exploration has not been resumed. In the idle interval the eastern field, in which oil has been discovered, was exploited by private parties, and proved to offer sufficient reward for the venture. The present indications are, however, very favorable for the development of this western field, which offers favorable inducements to

prospectors, for several reasons. In the first place, the field is penetrated by a good network of railroads and is bisected by Green river, with uninterrupted slack-water navigation, offering unusual facilities for getting the yield to market. While but few borings have been made, there are evidences favorable to the existence of oil in various counties which cannot be ignored. In Breckenridge county there is a tar or asphaltum spring which was known to the early settlers, giving indubitable evidence of the existence of oil somewhere near, just as the discovery of oil in California, now the largest producing State, was preceded by the discovery of similar evidence.

TROLLEY-FREIGHT POSSIBILITIES.

[Pittsburg (Pa.) *Dispatch*.]

Within less than 12 hours after Governor Stuart signed the trolley-freight bill the Philadelphia & West Chester Traction Co. inaugurated a milk freight service between West Chester and Philadelphia. The farmers along the line had been canvassed and had been waiting impatiently for the opportunity. Along other routes near Philadelphia the same anxiety for the trolley-freight service is reported. Milk will be the chief product carried at first because easily handled, but in time farm produce, garden truck and light merchandise will be added. The Philadelphia Rapid Transit Co. is expected to go into the freight business eventually, the hauling to be done at night when the passenger traffic is light. Congressman McKinley of Illinois controls an extensive traction system in that State which is operated upon this system and reported to be very successful.

So far the freight possibility has not, it is said, been specially considered here, but it will probably be taken up eventually. The new traction line to Butler opened yesterday, tapping a district noted for its farm, garden and dairy products, will likely be the first experiment in this section. Senator Kline's food inquiry commission suggested that Pittsburg might obtain relief from high prices through the operation of trolley-freight service to the farms. This relief may easily be overestimated, but it would still be a factor. Another possibility is that the ultimate development of the trolley-freight service would contribute to lessening the vehicular traffic in the congested portions of the city. Light merchandise might profitably be sent from the stores to distributing points in the residence districts. When fully exploited the new system may prove a much greater convenience, both in city traffic and between the cities and the suburban and rural districts, than is now generally conceived.

DUST.

[New York *Tribune*.]

A few dusty statistics about dust are in order these breezy days. The public does not seem to be aware of the great dangers of breathing city dust and of the relative ease with which these dangers may be avoided. "The Medical Journal" has just published Dr. Gilman Thompson's report about the bacterial population in dust motes, and the facts are startling enough to give rise to an anti-dust league. The terrifying list of oral, nasal and bronchial diseases which the doctor says may be contracted from street dust makes complaints against ordinary soot read like compliments. We are told that conjunctivitis, nasal catarrh, diseases of the middle ear, tonsillitis, quinsy, laryngitis, bronchitis, pneumonia and influenza may jointly or severally result from a brief morning promenade through any of our so-called streets. Dr. Thompson declares that nine-tenths of all inhalation diseases are dirt diseases.

To avoid these afflictions the dust in our streets must be either removed or kept continually wet during the warm months. Complete removal, save on asphalted streets, can be effected only by flushing, but the limited supply of fresh water prevents the liberal use of fire hydrants for this purpose. Salt water mains have not yet been installed, and an extensive system of that kind will not be ready for many years to come. But the street department might use water carts of some improved pattern and fill them at the water-front. There are many kinds of patent water carts designed both to soak and to remove dust, and in various well-governed European and American cities such carts have long been successfully used. One sort employed in some German municipalities is equipped with rotary rubber sweeps which drive into the gutter the dirt that has been thoroughly soaked by a stream of water thrown just in advance of the sweeps. With little or no further assistance the resulting thin mud sweeps into the sewer. The water carts might be loaded at the water-front without much trouble by equipping them with hand pumps, which could be driven by the unexercised arm of the cartmen. Or would this be asking too much of these high municipal officers? The objection raised in the past by city engineers and others, that the sewers might be clogged by the vast quantities of mud thus driven into them, probably holds good only in certain parts of the town where old pipes with slight pitch still survive. In such districts, though, mere frequent sprinkling would be vastly better than the present do-nothing system.

ORIGINAL YANKEE PLUCK.

[New York *Globe*.]

The exposition at Jamestown, which will formally open its doors to the public on April 26, commemorates not alone the date on which the southerly cape of the great Chesapeake inlet was sighted, nor that a few days later, when Jamestown itself was founded, but the whole period of struggle by these progenitors of the present inhabitants of the country—the period when they were fighting to gain a foothold for the Anglo-Saxon in America.

It was the same grit, dogged perseverance and team work which pulled this little band of settlers through the first six years of massacre and pestilence and starvation that have been the underlying causes of Yankee success over the later trials and dangers of the country's infancy and youth. The pioneer shiploads seem to have been, with a few exceptions (although there is some dispute on this point), lazy, treasure-hunting, lawless men, but if they were they soon gave place to the true colonists, who eventually made the settlement a permanency.

They were indeed "the first heroes of American history." The "awful human tragedy" lived through there by men, women and children has been characterized by staid historians as "without parallel in the history of English colonization." They had at times, it is recorded, to literally act upon that later phrase of the colonists, that "the only good Indian is a dead Indian," by actually eating the bodies of dead Indians to save themselves from starvation.

If the little band had given up, as would have happened in 1610 but for the timely arrival of food and new men, the history of this continent might have been very considerably altered, for Spain was anxiously waiting for the desertion of the colony to plant her own flag over the disputed territory which she claimed as a part of the Spanish Indies. Jamestown's exposition is, therefore, from a historical point of view, one of the most interesting

celebrations of its kind ever held in this country, and second in sentimental and patriotic appeal only to the Philadelphia Centennial of 1876. In both these features the above-mentioned expositions differ markedly from those which have come between them.

WONDERFUL WATER SYSTEM.

[New York *Sun*.]

One of the greatest water-supply projects in the world is about to be bonded by the city of Los Angeles. The issue will be for \$25,000,000, so that, in point of cost, it has often been exceeded, but in novelty and in the magnitude of some of its parts the Los Angeles system will possess features which are unique.

The city's present source of supply is the San Fernando valley, whose sandy soil is underlain by deep gravel beds. During the rainy season every mountain torrent which rushes down into the valley, instead of running off to the ocean, sinks into the sand, is drunk eagerly by the gravel beds, and there is held in suspension for months and even years, forming a natural reservoir, with an area of about 150 square miles and an unknown depth.

While the population of Los Angeles in 1890 was 50,000, says *Moody's Magazine*, in the next 10 years it doubled. In the next five years it doubled again. It now approaches 250,000, and is still growing.

In 1901 the city acquired from a corporation the ownership of the water-works. The average consumption then was 300 gallons a day per head of population—the largest in the United States. By the introduction of meters this has been reduced to 120 gallons.

Placing the future daily consumption at 150 gallons per head, the rapidly growing city must seek its future greater supply from some other source; and that source is found in the Owens River Valley, more than 200 miles straight north of the city, high up in the mountains.

This valley is about 4000 feet above sea level, or 3500 net above Los Angeles, and has a watershed of 2500 square miles. Through it from north to south runs the Owens river, carrying an average daily flow of 400,000,000 gallons.

To the south the valley opens upon the Mojave desert. The other three sides are mountain ranges containing the highest peaks in the United States.

The proposition is for the city to acquire by purchase the water rights in the valley (it has already acquired many of them) to dam the river 37 miles further north, and by thus diverting the water to carry it by conduit to Los Angeles, 226 miles away.

It will be the longest conduit supplying a city with water in the world, and with one exception the longest for any purpose. That exception is the Coolgardie system in West Australia, where water for mining purposes is sent through a 30-inch pipe and is lifted over a mountain range 1447 feet by pumping stations along the line.

The only other water-works plant in ancient or modern times at all comparable with the Los Angeles system in the magnitude of these engineering features is the one now being constructed by the city of New York. But the Los Angeles system, with a daily capacity of 400,000,000 gallons, will cost only \$25,000,000, while that of New York, with a daily capacity only 100,000,000 gallons greater, will cost \$162,000,000.

The Owens river watershed, moreover, is absolutely inaccessible, and as the city will control the valley, it is guaranteed a supply of pure mountain water.

Although on its way from Owens river to Los Angeles the water must penetrate a

great mountain range, it could be carried down by gravity alone, without pumping or tunneling. But the route would be circuitous and more expensive, and it is thought better to construct 28 miles of tunnels. Five miles of this work will be through solid rock under the mountains, 14 feet wide and 11 feet high, and will require five years for completion.

The aqueduct proper will be of monolithic concrete construction, reinforced with steel sunk in a plain ditch, averaging 14.7 feet wide and 10 feet high, with a concrete cover. Inverted steel syphons will be used at a few places to provide against danger from cloudbursts. The minimum thickness of the aqueduct walls will be 6½ inches. More than 300,000 tons of cement will be used, and 5000 men will be employed.

The city will erect a cement mill and make its own cement at an estimated cost of \$1 a barrel. A railroad will be constructed parallel with the proposed line of the conduit, together with a telegraph and a telephone line, and over the road men and materials will be carried to the points desired. The road will be about 100 miles long and will connect at each end with the Southern Pacific. It is not impossible that, after completing the aqueduct, the city will continue to operate the road as a commercial enterprise, to transport passengers and freight to settlements along the line.

Of the 226 miles of conduit 22 miles will be an open unlined ditch through clay, mainly in the Owens River Valley; 26 miles will be a covered ditch, lined with cement or rubble; 139 miles will be a covered conduit of cement, 18 miles will be tunnel through rock, 10 miles tunnel through earth, 9 miles of steel syphons crossing canons and two miles of steel flumes crossing depressions. Eventually the conduit will be covered throughout its entire length, but at first that is not necessary or desirable.

That part of the water needed for immediate use in the city will be sent directly to the intake for Los Angeles; that not needed for immediate use will be sold for irrigation or diverted into the gravel beds of the San Fernando valley, be held there in suspension and be drawn from it as the city's supply is now drawn. The supply will be abundant for at least 100 years to come, if not, indeed, forever; for the growth of vegetation under irrigation will tend in time to increase the annual rainfall.

Nor is this all. By the construction of some comparatively inexpensive dams with which power can be accumulated Sundays, nights and during hours of the day when electricity is not in full use it will be possible to increase the generation of electric current at the hours when it is most needed, until a total of 93,000 horsepower is reached. And all this without any waste of water or interruption of the uniform flow to Los Angeles.

The current can be used for lighting streets, parks and public buildings; for operating electric railways and running factories. Some engineers estimate that 75,000 horse-power will be available for commercial purposes, yielding a revenue which alone would more than pay the interest on the bonds.

VAGRANCY AND CRIME IN CITIES.

[Chicago (Ill.) Record-Herald.]

Among the bills which the Chicago delegation now at Springfield intends to push is one which amends the act in relation to vagabonds or vagrants with the view of making it more effective and its penalties more severe and deterrent from the point of view of the actual or potential criminal. The bill was drawn by Chief Justice Olsen and has been endorsed by Municipal Court

judges and by students of the crime problem in this city and elsewhere.

To discourage vagrancy and idleness associated with dissolute and vicious conduct is to discourage and lessen crime. Anything that rids a city of loafers, tramps and vagrants tends to reduce the number of its robberies, assaults, hold-ups and murders. Only the other day an experienced police magistrate of New York, in discussing the steady increase of crime in that city, and the growing audacity and skill of the lawless bands, urged legislation against vagrancy as the best indirect method of fighting crime.

The New York law is particularly weak, in that professional pickpockets and other known ex-criminals cannot be arrested as vagrants. The Illinois section of the criminal code in which the term "vagabond" is defined is more comprehensive and explicitly includes persons known to be pickpockets, thieves and burglars, persons who habitually misspend their time in vicious resorts, persons who habitually neglect their employment and do not lawfully provide for themselves, and so on.

The pending bill revises the penal section, increases the penalty for vagrancy and simplifies the proceedings in cases of persons liable to arrest or arrested either upon warrant or upon view.

The essential thing, according to all competent authorities, is to sentence such offenders to hard labor upon the streets or on a "rock pile." Small fines fail of their object in many cases; they are paid with a cheerful or nonchalant air and lead to a redoubling of the effort toward recoupment by pickpocketing for example.

Vagrants are entitled to trial by jury under our laws, but the sentence rests with the magistrates or courts, and now that we have the Municipal Court in Chicago an effective and adequate anti-vagrancy law would have a real chance of rigorous and intelligent enforcement.

PRODUCTION OF LEAD IN 1906.

[Engineering and Mining Journal.]

The production of refined lead in 1906 was 415,656 short tons. This report is based upon returns received from all of the refiners, with the exception of one small concern, whose production is estimated on a basis of its known receipts of ore. In our issue of January 5, 1907, we reported the total production as 412,042 tons, our final figure being a little less than 1 per cent. higher than the preliminary. The details of the production are given in the following table:

Production of Lead in the United States.			
(In tons of 2000 pounds.)			
Class.	1905.	1906.	
Desilverized, domestic.....	205,665	220,095	
Antimonial, domestic.....	8,456	7,434	
Southeast Missouri.....	81,299	100,492	
Southwest Missouri.....	21,324	16,528	
Miscellaneous.....	3,000	990	
Total, domestic.....	319,744	345,529	
Desilverized, foreign.....	83,504	67,441	
Antimonial, foreign.....	2,730	2,686	
Total, foreign.....	86,234	70,127	
Grand total.....	405,978	415,656	
Total, antimonial.....	11,186	10,120	
Total, soft.....	102,623	118,000	
Total, desilverized.....	299,169	287,536	

It is to be distinctly noted that the above statistics represent the production of refined lead. The lead-smelting industry is so complex that it is impossible to make an accurate distribution among the States. A fairly close separation can be made, however, between the lead of domestic origin and that of foreign origin, because the latter is dutiable. Even under that circumstance, however, the separation is not precise, because the Government assesses duty on only 90 per cent. of the work-lead and lead content of ore imported, allowing 10 per cent. for loss in smelting and refining; but the actual loss in those processes is not so large as that, wherefore the smelters and refiners make

a certain gain on their imports, which they are able to market as domestic lead. The statistics reported above are accurate so far as they represent the quantity of lead actually produced in final marketable form. They include a small quantity of old lead which comes back to certain of the refiners for reconversion into refined lead.

As to the classification in the above table, it is to be further noted that it is to a large extent conventional. The quantities credited to Southeast and Southwest Missouri represent the lead actually smelted in those districts, not the ore production of the districts. The smelters of Southeast Missouri obtain considerable lead ore from Joplin district, and also obtain small quantities from outside of Missouri. A considerable portion of the lead produced in the Southeast Missouri district (in which we include the two large smelters in Illinois, near St. Louis) is desilverized, which is done, however, rather to improve the quality of the lead than to extract the small quantity of silver which it contains. The lead entered as "desilverized" in the above table is only the product of the high-grade argentiferous work-lead of the Far West.

BRITISH TEXTILE PROSPERITY.

[Manchester Correspondence Bradstreet's.]

All spinning and weaving machinery that can be got to work is running at full speed. New looms and spinning factories are starting as quickly as machinery can be supplied, but machinists are much behindhand in contract time for delivery. In the weaving department operatives are scarce, and, as a matter of fact, looms are here and there standing idle for want of workpeople. Quite a number of new concerns have to start, and it is a question as to where the hands will come from. Manufacturers who use bought yarn are compelled to buy good qualities in order to satisfy their employees. During the past few months several strikes have occurred owing to alleged inferior quality of yarn. In the spinning department there does not seem to be much difficulty in commencing new mills, but as there are nearly 4,000,000 spindles projected, it remains to be seen how such mills will get a full complement of operatives. Mill floating has at last come to an end, as the high prices quoted for new machinery are considered prohibitive. Compared with five years ago, spinning machinery is estimated to be not far off 50 per cent. higher than then, and it is the same in clothmaking.

A feature is the lessened takings of cotton goods by China. The United States has recently shipped less than usual. Stocks in Shanghai are still moderately large, but the tendency is for them to decline in bulk. Manchester for some time has been a little concerned at the successful competition of America in the China market, and it is felt in Lancashire that in several styles of cloth the United States has got a firm hold in the far East. Our manufacturers as a body are not experiencing as wide a margin as a year ago. This applies to makers who buy yarn. The high prices prevailing for twist and weft are considered abnormal. Those weaving firms who also have spinning machinery to supply looms are doing much better. The margin between raw cotton and cloth is still remunerative.

Spinning in all its branches is in a strong position, and profits accruing have been perhaps larger than at any period in the history of the trade. The quarterly stock-takings just completed have shown enormous gains. In a total of 20 average concerns the total gain for the last three and six months shows on capital employed a profit of about 30 per cent. per annum. These concerns have paid dividends of

about 10 to 15 per cent., placing the balance to the reserve fund.

Shipping yarns have latterly been in extensive request for the Continent, notably Russia, Germany and Austria, and there has been an exceptional demand in the finer members from the United States.

It is noteworthy that so far this year the United States has taken from us 28,472,000 yards, as compared with 25,029,000 yards in the same period of last year and 16,207,800 in the first three months of 1905.

LABOR DEMONSTRATIONS.

[New York Evening Mail.]

The politicians of Europe are wondering whether they are going to round their annual industrial Cape Horn, the first of May, as easily and safely as usual. The great strike date is being anticipated by a good many smaller labor disturbances.

As things were tending, it had become an actual convenience to have something like a general strike at a stated time, because it gave the employers and the authorities a chance to prepare their opposition and control any outbreaks that might occur. General strikes now mean general weakness on the part of the workmen, for the strikers invite their own starvation by such movements, without seriously crippling the employers.

On the other hand, one adroit blow in a single spot, struck without warning, has the double advantage, for the strikers, of taking the "capitalistic enemy" unawares and effecting a notable advertisement of the power of organized labor. For there is nothing so picturesque and interesting as a waiters' strike, a barbers' or bakers' strike, or a shutting off of the lights of a great city by a cessation of work on the part of the electricians.

However, most of these brilliant movements in detail have been failures up to this time, and the workmen are again raising the cry of the necessity of solidarity and concerted action. In this country, where the conditions are all against labor demonstrations at present, the workmen are confronted by a tendency toward a sort of aristocratizing in their organizations. The "elite" unions—the Brotherhood of Locomotive Engineers, the telegraphers' organization, the trainmen's unions, and so on—are acquiring a sort of primacy in labor matters. If they are kept satisfied, or if their demonstrations are turned into mere show by concerted action between them and the railroad companies, the organizations of less well paid workers are likely to regard themselves as betrayed in the house of their friends.

There is no more peculiar labor situation to be found than that which has developed in England, where the anti-militaristic program of the Liberal Government, presumably so satisfactory to the Socialists, has precipitated a kind of Coxey's army parade on the part of discharged workmen of the Woolwich arsenal and the Pimlico army clothing factory. Yielding to the socialistic anti-war agitation, the Government reduces military expenditures, and immediately it has upon its neck marching armies of discharged workers from the arsenals demanding resumption of the manufacture of big guns, small arms and uniforms!

As every discharged worker from the arsenals is sure to vote for the Tory candidate at the next by-election, and as thousands of outside workers are joining the Woolwich men's movement from pure sympathy, it is plain that a Liberal government cannot take radical demands for retrenchment of military expenditures, disarmament, and so forth, too seriously.

If you wish to keep posted on the progress of the South, read the MANUFACTURERS' RECORD. Price \$4 a year.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

WINSTON TO WADESBORO.

Important Railway Construction Under Way in the Old North State.

[Special Cor. Manufacturers' Record.]

Winston-Salem, N. C., May 1.

The statement is made that the North Carolina Valley Railway, now in operation between Thomasville and Denton, North Carolina, a distance of 21 miles, is to be extended both north and south so as to form a connecting link between Winston-Salem and Wadesboro. It is stated that the work is under way at three points along the line from Thomasville to High Point, from High Point to Winston-Salem and from Denton toward Rockingham and Wadesboro, and that contract for the entire work will be let within a few days. A line to be built between Thomasville and High Point to Winston-Salem and Greensboro is to be an electric trolley line. This portion of the road will be 48 miles in length. The entire line will be 111 miles long. Depending on the result of survey, a line will be built from Winston-Salem south to Whitney, and when completed this line would connect up the four trunk roads of the South Atlantic seaboard—the Norfolk & Western, the Southern, the Atlantic Coast Line and the Seaboard Air Line. This has never been done as yet, although it is the announced purpose of the Winston-Salem Southbound road to make the same connections.

The Carolina Valley Railway was acquired by the present interests three years ago. The present capital stock is \$125,000, but the company has just recapitalized the road for \$5,000,000. The president of the road is Dee Allen of High Point, formerly of Michigan; vice-president, W. T. Van Brunt, New York, president of the St. Joe & Grand Island Railroad. The directors are D. S. Harding, New York; George B. Cowper, New York; H. A. Megraw, Baltimore, and F. I. Griswold of High Point. It is stated that all arrangements have been made, and that work will be pushed forward to completion as rapidly as possible. Vice-President Van Brunt is with E. H. Harriman, 120 Broadway, New York, and is said to have been close to the Harriman interests for a great many years past. This is mentioned here as a possible intimation of the backing the road has.

It is an interesting fact in this connection that Mr. Van Brunt and associates some months ago purchased the street-railway system of Augusta and the line connecting Augusta and Aiken, S. C., and it was generally understood at the time that Mr. Van Brunt was closely associated with Mr. Harriman, whether Mr. Harriman was personally interested in this purchase or not. Those who have been closely studying the situation in the Piedmont section recognize that sooner or later many of the projected interurban electric lines and the vast hydro-electrical development under way will doubtless have some community of interest. At any rate, it is certain that this section is to see a greater activity in hydro-electric and in electric-railway developments than has ever yet been seen in any part of the South.

ELKIN TO TROUTDALE.

A North Carolina Railroad Over the Mountains Into Virginia.

Mr. H. G. Chatham writes from Elkin, N. C., to the MANUFACTURERS' RECORD as follows:

"The Elkin & Alleghany Railway Co. was chartered in February last by the Legislature of North Carolina, which was

in session at Raleigh at that time, and 100 convicts were appropriated by the State to facilitate the grading, the State to maintain the convicts and receive in payment stock in the road. The road is designed to be built from Elkin, which is on the Southern Railway, across the Blue Ridge mountains at Roaring Gap, traverse Alleghany county from south to north and connect with the Norfolk & Western Railroad at or near a station called Troutdale, in Grayson county, Virginia, which is 10 miles north of New River. The Troutdale road leaves the main line of the Norfolk & Western at Marion, Va.

"The line will traverse one of the best undeveloped sections in the Southern States, rich in minerals, magnificent timber and very fertile bluegrass lands. Alleghany county is one of the finest sections of North Carolina, and, in fact, of America, for apple culture. No superior fruit can be found than in some of the orchards now bearing. The road will cross the Blue Ridge at an elevation of about 3300 feet, and no part of the 'Land of the Sky' surpasses that section in scenic beauty or climatic perfection.

"The length of the line will be about 80 miles from Elkin to Troutdale, and will perhaps extend south to Statesville, N. C., or through Yadkin county to Winston-Salem, N. C. H. G. Chatham of Elkin, N. C., is president; Mr. J. Clinton Smoot of Alexandria, Va.; Mr. H. E. Fries of Winston-Salem, N. C., and Lieutenant-Governor R. A. Doughton of Sparta, N. C., are vice-presidents, and Mr. A. G. Click of Elkin is secretary and treasurer. Col. O. H. P. Cornell, now resident at Winston-Salem, N. C., is chief engineer, and Mr. H. Morton Stephens of Philadelphia has charge of the corps in the field.

"We hope to begin grading by June 15."

TERMINALS IN TEXAS.

Much Work Planned for Improvements at Several Points.

In the progressive work that is being done to improve railroad facilities in Texas the plans for better terminals is most conspicuous. Work is already begun at Galveston upon the freight terminals, and an expenditure of about \$2,500,000 is to be made there. Other plans in contemplation include Houston, where \$3,000,000 will be expended, and Dallas, where nearly if not quite an equal amount will be devoted to providing better facilities. Including plans for Fort Worth now under consideration, it appears that a total of \$10,000,000 or more is to be spent within the next year or two in Texas for better terminal facilities.

Among the lines interested are the Rock Island, Santa Fe, the Frisco, the Colorado Southern, the St. Louis Southwestern and others. Extensive tracts of land have been acquired at Galveston for the seaport docks, piers, warehouses, elevators, yards, etc., and at Houston about 12 blocks of land have been purchased for a union passenger station and freight terminals. The engineers have prepared plans for these works, and it is probable that construction will be started at other points besides Galveston in the near future.

New Equipment, Rails, Etc.

Among the orders for new railroad equipment recently reported is one from the Alabama Great Southern Railway for 500 freight cars, which will be built by the Gadsden Car Works at Gadsden, Ala. They will cost about \$400,000.

The American Car & Foundry Co. at Binghamton, near Memphis, Tenn., is reported to have begun work on 500 steel underframe coal cars for the Illinois Central Railroad. An order for 600 box cars for the New Orleans & Northeastern Rail-

way is nearly completed. Other orders have been received for box cars thus: Gulf & Ship Island Railroad, 500; Atlanta & West Point Railway, 100; Mississippi Central Railroad, 100; New Orleans & Northeastern Railway, 350; Nashville, Chattanooga & St. Louis Railway, 500; National Railroad of Mexico, 800.

The St. Louis, Iron Mountain & Southern Railroad (Missouri Pacific system) has received seven large Atlantic-type locomotives at its shops at Argenta, Ark.

The Frisco system's equipment orders yet to be filled are said to include 75 freight locomotives and 50 passenger engines, besides 2000 freight cars.

The Baton Rouge Electric & Gas Co., which operates the street railway in that city, has ordered nine semi-convertible vestibule cars to be built by the St. Louis Car Co.

The United Railways & Electric Co. of Baltimore has received 18 high-speed cars of the semi-convertible type out of an order of 80 placed with the J. G. Brill Company of Philadelphia.

The Missouri Pacific and Iron Mountain roads will, it is said, add more than 9000 cars to their equipment this year, orders for most, if not all, of them having been placed.

The Georgia Railway & Electric Co. of Atlanta has received 10 new cars from the Cincinnati Car Co.

The St. Louis & San Francisco Railroad is reported to have ordered 10,000 tons of rail for this year's delivery.

The Pennsylvania Railroad Co. is reported to have ordered 153,000 tons of rails for next year's delivery.

The Galveston Terminal Co. has ordered 2000 tons of 75-pound rails for immediate delivery.

The Manufacturers' Railway of St. Louis is reported to have ordered three locomotives and 200 refrigerator cars.

The Louisiana Railway & Navigation Co. will, it is reported, purchase 500 box cars of 60,000 pounds capacity.

The Interstate Railroad is reported to have given an additional contract to the Ryan Car Co. for six hopper cars and five box cars.

The Ryan Car Co. has received an order from the Rock Island for 103 box cars.

The Tampa Northern Railroad has ordered three passenger cars and two combination passenger and baggage cars from the Hicks Locomotive and Car Works. The railroad is also reported to be in the market for 100 flat cars and 100 box cars.

The St. Louis Southwestern Railway proposes to build 450 flat cars at its shops in Pine Bluff, Ark.

Chicago to New Orleans.

President Henry I. Miller of the Chicago & Eastern Illinois Railroad is reported at New Orleans as confirming dispatches which said that surveys are under way to build a connection from the Chicago & Eastern Illinois Railroad at Joppa, Ill., to the Mobile, Jackson & Kansas City Railroad at Middleton, Tenn.; also that a line will probably be built from a point on the Mobile, Jackson & Kansas City Railroad in Mississippi to New Orleans.

Mr. Miller, accompanied by other railroad and business men, has just completed a unique trip down the Mississippi river from Joppa, Ill., to New Orleans, La. The party traveled in two private cars, which were placed upon a railroad transfer barge that was drawn by a towboat. He said that they made this trip in order to observe river conditions from Paducah, Ky., to New Orleans. The journey was delightful, and the travelers entertained themselves with shooting and fishing while en route. Stops were made at Memphis, Vicksburg, Natchez and Baton Rouge. Besides Mr. Miller, the party included R. R. Hammond, president, and J. K. Deer-

ing, vice-president of the Deering Coal Co. of Chicago; William M. Kavanaugh, president of the Lakes to the Gulf Deep Waterway Association of St. Louis, and others.

Upon reaching New Orleans the cars were taken off the barge and the members of the party continued their journeys by rail, some going to Texas and others returning home.

The Ocilla & Valdosta Deal.

Mr. H. C. McFadden, president and general manager of the Broxton, Hazlehurst & Savannah Railroad Co., writes from Fitzgerald, Ga., to the MANUFACTURERS' RECORD that the company has purchased the property of the Ocilla & Valdosta Railroad Co., consisting of its railroad running from Broxton to Ocilla, with a branch to Fitzgerald, together with its equipment.

Continuing, Mr. McFadden says: "It is our intention to change the name of the road to the Fitzgerald, Ocilla & Broxton Railroad Co. This will be done within the next 30 days.

"The length of the line is 30 miles, and we also have under lease 10 miles extending from Ocilla to Irwinville. We connect with the Atlanta, Birmingham & Atlantic and Seaboard Air Line at Fitzgerald, the Atlanta, Birmingham & Atlantic at Mystic, the Seaboard Air Line at Ocilla, the Atlanta, Birmingham & Atlantic at Osierfield, and the Douglas, Augusta & Gulf at Broxton.

"The territory through which we run is well timbered, there now being seven sawmills in operation along the line. The region is also fine agriculturally. We are not considering extensions at the present time. We will probably be in the market for equipment later on.

"The road was purchased by myself and associates, all stock being in my name."

Jamestown Exposition Folder.

The Richmond, Fredericksburg & Potomac Railroad and Washington Southern Railway (Richmond-Washington line) have just issued a very handsome and useful folder on the Jamestown Exposition. The outside covers show the "Connecting Link" trade-mark in appropriate colors, and the seal of Virginia encircled by a green wreath with a touch of colonial yellow, in which the words "Jamestown Exposition" stand out boldly. The interior contains many historical and useful references, besides a bird's-eye view of Hampton Roads and a plan of the exposition grounds and buildings. The work is full of beautiful and interesting scenes in Richmond, Fredericksburg and Washington and other points along the Richmond-Washington line. New maps in colors of Richmond and Washington, the historical portion of Virginia between Richmond and Norfolk and Richmond and Washington, showing the prominent points of colonial and modern history, together with the famous battlefields and dates of the battles of both periods, are also included. The work is beautifully executed, and rates and stop-over privileges are fully set forth.

The New Steamship Columbia.

The new steamer Columbia of the Chesapeake Steamship Co.'s line made her first trip from Baltimore about a week ago, taking Governor Warfield, his staff and the Maryland Commission to the Jamestown Exposition. The company will now put her in regular service as a night steamer between Baltimore, Old Point Comfort and Norfolk. This fine steamship was built at Camden, N. J., by the New York Shipbuilding & Drydock Co. She is 285 feet long and 46 feet wide. There are two passenger decks, with all outside staterooms. Her construction is

such as to prevent vibration and to make her exceedingly strong. The interior is beautifully decorated and furnished, and all the staterooms have running water, steam heat and plenty of light and air. Electric light is employed for illumination. On her trial trip the Columbia made 20 miles an hour, and it is expected that her speed as well as her superior equipment will make her one of the most popular vessels with travelers. E. J. Chism is general passenger agent of the company at Baltimore.

Baton Rouge to Hammond.

[Special to Manufacturers' Record.]
New Orleans, La., April 29.

Solomon Wexler, president of the Baton Rouge, Hammond & Eastern Railroad, announced today that contracts will shortly be let for the construction of the 43 miles of track between Baton Rouge and Hammond, La. The right of way has already been secured, and this stretch of road is to be finished by December 1 of this year. Mr. Wexler said that the plans for the further development of the road were still in doubt. C. H. Fiske, with headquarters at Hammond, La., is the engineer in charge.

Chattanooga Southern Receivers.

Weston W. Kent, general manager, Chattanooga, Tenn., and E. C. Osborne, secretary and treasurer, New York, have been appointed receivers for the Chattanooga Southern Railroad, a line 92 miles long, extending from Chattanooga, Tenn., to Gadsden, Ala. Inasmuch as officers of the company were named as receivers, the proceedings are supposed to be of a friendly nature. It has been reported from time to time that the Louisville & Nashville Railroad would acquire the property, but whether such a change of ownership will come about does not as yet appear.

Motor-Car Companies.

The Union Motor Car Co., capital \$15,000, has been organized at Union, S. C., to conduct a general passenger and freight business by means of motor cars. H. T. Yates and L. M. Gordon are the incorporators.

The West Point Traction Co. has been incorporated at West Point, W. Va., to operate automobile lines; capital from \$1000 to \$10,000. The incorporators are J. W. Marshall, president; J. W. Owens, secretary and treasurer; W. C. Dunham, all of West Point.

Railroad Notes.

A report from Tampa, Fla., announces the completion of the reinforced concrete viaduct built by the Seaboard Air Line across its yards there. The viaduct is 1350 feet long and has three roadways. The contractors for the work were W. R. Bonsal & Co. of Hamlet, N. C.

The Chesapeake & Ohio Railway Co. is reported to be rushing work to complete a system of electric automatic block signals between Richmond and Newport News, Va., and these new signals are to be used during the rush to the Jamestown Exposition.

W. Denny & Co., lumber manufacturers of Moss Point, Miss., will build a river terminal in connection with their railroad. The Gowers Southern Dredging Co. has been given a contract to deepen the Escatawba river at the terminal and to improve the river shore for terminal purposes. The line runs from Moss Point to Donovan, Miss.

Capt. C. W. Drown, W. E. Glassell and others of Shreveport, La., and other towns along the Red river are reported to be organizing a company to operate three steamboats on the Red river.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

For New Developments.

The Straight Mountain Coal & Mining Co. of Huntsville, Ala., informs the MANUFACTURERS' RECORD that it has voted \$50,000 of 6 per cent. bonds for the purpose of developing its coal mines to an increased capacity. The company owns 2400 acres of land at Carlisle Station, on the Nashville, Chattanooga & St. Louis Railway, about 15 miles from Gadsden, Ala. It has three seams of coal on the property, one of which is being opened. Later on it is intended to open mines on one or both of the other seams and to construct coke ovens. All necessary machinery and supplies have been purchased. Officers of the company are Messrs. R. T. Baugh, president; J. R. Boyd, vice-president, and H. J. Certain, secretary and treasurer. Mr. C. M. Baugh is in charge of operations at the mines. This enterprise was referred to last week.

Russell Manufacturing Co.

Mention was made last week of the Russell Manufacturing Co. of Alexander City, Ala., as contemplating the installation of an equipment for manufacturing the yarns consumed in its knitting mill. The company is now operating 34 knitting machines, its daily output being 1000 dozen light-weight undervests for women, and about 1000 pounds of 24s yarns are consumed daily. It is inviting bids for the machinery required for spinning, and will soon make a final decision as to the improvement. The Russell Manufacturing Co. has a capital stock of \$50,000.

McNeill Manufacturing Co.

The McNeill Manufacturing Co. has been incorporated with a capital stock of \$200,000 by Messrs. W. D. McNeill of Raeford, N. C.; W. E. Kindley and C. L. Pemberton of Fayetteville, N. C. This company is to continue to fruition the recently-mentioned plans of Messrs. McNeill and Kindley and S. H. McRae of Fayetteville for developing a water-power and building a cotton mill at Manchester, N. C. They have purchased 129 acres of land for \$25,000 and a water-power property, the latter now furnishing 500 horsepower, which is to be increased.

Melville Manufacturing Co.

The Melville Manufacturing Co. of Cherryville, N. C., has completed the erection of a modern mill building, one story high, 75x250 feet in size, in which is being installed 5000 spindles for the manufacture of 30-2 yarns. Its architect-engineer in charge is Stuart W. Cramer of Charlotte, N. C., and all the required machinery has been purchased. The company was reported among the new enterprises last year by the MANUFACTURERS' RECORD. Capital stock is \$125,000, and D. A. Rudisill is company's agent.

Brown Manufacturing Co. Enlarging

The Brown Manufacturing Co. of Concord, N. C., will enlarge its present plant of 7680 spindles and 200 looms. It has awarded contract to R. A. Brown for the erection of an additional building to be two stories high, 125x162 feet in size, and will install 10,000 spindles, 400 looms and

a finishing plant. Contracts for the new machinery have also been awarded. Gingham, shirtings and fine colored goods constitute the mill's product.

For Tracing Cotton Shipments.

Southern cotton manufacturers will doubtless be interested in the announcement that W. G. Crutchfield of Greensboro, N. C., will establish a cotton-goods shippers' dispatch. This is designed to relieve cotton-mill managers of the necessity for tracing their traffic matters. Mr. Crutchfield will trace shipments and attend to all details arising from this. He will charge a uniform fee for memberships in the dispatch.

The Klotho Mills.

The Klotho Mills, recently referred to as organized, has incorporated and taken over the Enterprise Mills at Kings Mountain, N. C. This new company will overhaul the entire plant and replace old machinery with new equipment, contracts for same having been awarded. Considerable new machinery will be furnished by the Lowell Machine Shop, Lowell, Mass. Mr. J. S. Mauney is president of the Klotho Mills.

New England Mill Men.

The National Association of Manufacturers at its closing session last week at Boston, Mass., elected Messrs. William B. Hartshorne of Lawrence, Mass., president; Charles T. Plunkett of Adams, Mass., and George Otis Draper of Hopedale, Mass., vice-presidents. Mr. C. J. H. Woodbury of Boston is the secretary and treasurer of the association.

Catawba Cotton Mills.

The Catawba Cotton Mills, Messrs. Yount & Schrum, proprietors, Newton, N. C., will be enlarged. An additional building will be erected, probably by day labor, and from 3000 to 4000 spindles, with accompanying machinery, will be installed. The Southern Power Co. of Charlotte, N. C., will furnish electricity to drive the plant.

Mandeville Mills Building Addition.

The Mandeville Mills of Carrollton, Ga., will build an additional mill, to be known as Mandeville Mills No. 2. This new mill will have an equipment of 10,000 spindles, with complement of twistors, winders, reels and wipers, for the manufacture of ply yarns. The company has begun the erection of the necessary buildings.

Capital for Cotton Mill.

It is proposed to organize company to build a cotton mill at Maxeys, Ga., and Guy R. Brightwell can give information concerning the projected enterprise. A Maxey party is prepared to invest, and is desirous of enlisting the investment of other capital. Mr. Brightwell can be addressed.

Paola Cotton Mills.

The Paola Cotton Mills of Statesville, N. C., has been incorporated with a capital stock of \$150,000. This is the company reported last week as proposed by N. B. Mills and associates.

Textile Notes.

Messrs. Johns & Anthony of Bishop, Ga., are reported as to establish knitting mill.

The erection of a modern knitting mill is contemplated by G. L. Suggs of Decatur, Ga.

The Hanover Manufacturing Co., L. W. Brander, president and treasurer, Concord, N. C., has leased and will operate the Magnolia Mills No. 1, containing 2040 spindles and 40 looms.

The Winder (Ga.) Cotton Mills is reported as to add 3000 spindles to its present equipment, which is 6012 spindles and 350 looms.

The Magnolia (Miss.) Cotton Mills is reported to have awarded contract for the installation of 2000 spindles, additional to present plant of 10,000 spindles and 264 looms.

The proposed company of N. B. Mills of Statesville, N. C., mentioned last week, will be known as the Frances Cotton Mills Co., with capital stock of \$110,000. Details are now being considered.

Messrs. H. Clay Willis of Fairview, O.; J. S. Huston of Thomas, O. T.; J. H. Coburn, M. V. Watson and J. K. Shinn of Kansas City, Mo., have incorporated the Orient Cotton Products Co. of Fairview, with a capital stock of \$200,000.

It is stated that the Mississippi Cotton and Woolen Mills of Wesson, Miss., has closed a contract with the Farmers' Union for the manufacture of cotton bagging to be used in place of jute, meaning the consumption of 25,000 bales of cotton of the State's annual crop.

A current report states that Chicago capitalists have purchased (from E. B. Ezell and Robert Adams of Eatonton, Ga., and George W. Atwood of Darien, Ga.) lands and riparian rights on the Oconee river, intending to develop the power and build a cotton factory.

The Ware Shoals Manufacturing Co., Laurens, S. C., is now adding to the textile equipment of its mill, and by July 1 expects to have the complete complement of 50,000 spindles and 1400 looms in position. This company has been operating about half that equipment.

The Magnet Knitting Mills of Clinton, Tenn., has let contract for 20 additional knitting machines. This company (mentioned last week) has completed improvements to its water-works by adding a tank and a pump, thus providing a daily supply of 50,000 gallons of filtered water.

It has not been decided to double the Elizabeth Mills of Charlotte, N. C. This company was reported last week as considering such an enlargement, but the question will be submitted to the stockholders before a definite announcement can be made. The plant operates 6000 spindles.

The MANUFACTURERS' RECORD is informed that the report of last week is not correct in regard to details of the proposed cotton mill to be built at Rockwell, N. C. Mr. Paul Barringer of Mt. Pleasant, N. C., the principal mover in the enterprise, states that details will not be arranged for several months.

It is stated that the Green River Manufacturing Co. has decided its main mill building will be two stories high, 1000 feet long by 100 feet wide, but the number of spindles and looms proposed to be installed is not stated. The company was mentioned last week as incorporated with a capital stock of \$251,000 to develop water-power and build cotton mill. Its principal incorporators are Messrs. S. B. Tanner and J. O. Bell of Henrietta, N. C.

Missouri Portland Cement Co.

A Portland-cement plant with a daily output of 800 barrels of product will be established by the Missouri Portland Cement Co., which has been incorporated recently. This company has the following officers: President, T. J. Benkendorf; secretary-treasurer, H. W. McNutt; offices at 112 Edmond street, St. Joseph, Mo. The capital stock is \$1,250,000.

The Retail Coal Dealers' Association of Texas recently held its second annual convention at Dallas.

MINING

Ouachita Pottery Co.'s Plans.

Important and extensive improvements to present facilities are contemplated for the coming year by the Ouachita Pottery Co., 606 Century Building, St. Louis, Mo. This company has been operating a test pottery plant at Hot Springs, Ark., and is now installing a permanent plant in which to manufacture high-class art ware, interior decorations and high class ceramic work generally. It expects later on to install near Hot Springs a plant for manufacturing high grade and press and glazed brick, roof and ornamental tile and other products for which its Arkansas pottery clay deposits are suitable. In Morgan county, Missouri, six miles northwest of Versailles, the company owns 1720 acres of clay, shale and coal lands, and at its town of Ouachita expects to install a plant with a daily capacity of 300,000 bricks and general fire-clay products, including fireproof articles. Mr. R. E. Bradford of St. Louis, president and general manager of the Ouachita Pottery Co., writes the MANUFACTURERS' RECORD regarding his company's mineral properties. He says: "We have one of the most peculiar deposits that I believe there is in existence. We have a flint fire-clay that is equaled only by one other clay, and that deposit is located in Gairnkirk, Scotland. We have drilled over 200 acres, and find that we have a deposit from 35 to 45 feet over this entire acreage, and this does not cover the entire deposit. We have located within 1000 feet of the flint fire-clay deposits another very peculiar deposit. We have 27 feet of plastic clay, which is covered by three feet of stripping, and immediately below this fire-clay we have three feet of plastic shale, and immediately below that we have six feet of bituminous coal, and then immediately below that we are down 27 feet in a canal coal. This plastic clay and coal is covered over a space of three-fourths of a mile wide by one mile long. It is our intention to erect our plant within 1000 feet of the two above deposits, which will be in a triangle and immediately beside the Versailles & Sedalia Railroad, which was built for the purpose of developing this property. A large stream of water fed by springs assures plenty of water."

Tennessee Copper Co.'s Report.

A report of operations of the Tennessee Copper Co. at Copperhill, Tenn., for the calendar year 1906 states that development of the company's three mines consisted of 36 feet of shaft sinking, 787 feet of drifts and crosscuts, 224 feet of raises and winzes and 4613 feet of diamond drilling. A total of 363,741 tons of ore was extracted, of which 362,900 tons were smelted, producing 11,319,591 pounds of fine copper in Bessemer pig, an equivalent of 31.19 pounds per ton of ore smelted. The amount of money realized for the copper sold is stated at \$1,739,446 and the profit for the year, after deducting \$106,000 for depreciation of plants, at \$824,231. New construction, including the erection of a sulphuric-acid plant, enlargement of smelter, equipping quartz quarry and the erection of dwellings and other structures, involved an expenditure of \$516,360. The plant employed an average of 1277 workmen during the year.

Northern and Fairmont Companies.

A current dispatch from New York refers to a transfer of valuable coal properties (reported to comprise 320,000 acres of undeveloped lands) in Kentucky from the Northern Coal & Coke Co. of Charleston, W. Va., to the Fairmont Coal Co. of Baltimore, New York and Fairmont, W. Va. The exact facts are that this transaction is merely a transfer of stock hold-

ings amongst men who already controlled the properties, and no new developments are contemplated at present. In effecting the transfer mentioned a change of officers is announced. Mr. Clarence A. Watson of Baltimore, president of the Fairmont Coal Co., has been elected president of the Northern Coal & Coke Co., succeeding Senator J. N. Camden of Charleston, W. Va.

New Coal Field in North Carolina.

An interesting report from Moore county, North Carolina, is the announcement that Mr. B. E. Bibb, who has been engaged for several years mining tale in that section, has discovered a vein of semi-anthracite coal on his property. The lead was found near the surface in the northern part of the county, about 20 miles from Sanford, and is said to be about five feet in thickness. It is thought to be an extension of the Deep river vein, and is estimated as capable of producing from 10 to 12 tons per day. The Board of Agriculture at Raleigh is arranging to exhibit a specimen of the coal at the Jamestown Exposition.

Illinois Coal to New Orleans.

Announcement is made that the Dering Coal Co. of Chicago has under advisement a plan for the establishment of yards and terminal facilities at New Orleans, La., by which it can handle a portion of the coal production from its Illinois mines. The company is said to own about 7600 acres of coal lands in Franklin county, Illinois, besides controlling a number of smaller companies, and proposes to inaugurate a barge line for bringing the product from Joppa to New Orleans. Officers of the Dering Coal Co. include Messrs. R. R. Hammond, president, and J. K. Dering, vice-president.

The Pocahontas Companies.

It is understood that plans have been completed for the proposed merger of the Pocahontas Consolidated Co. and the Pocahontas Collieries Co., to be effective July 1, under the new title of the Pocahontas Consolidated Collieries Co. This new corporation organizes under West Virginia laws with an authorized capital stock of \$7,800,000, of which \$2,800,000 will be 6 per cent. cumulative preferred and \$5,000,000 common stock. A bond issue of \$20,000,000 at 5 per cent. for 50 years will be authorized, and \$6,000,000 will be disposed of at present.

Investigating Western Kentucky.

Mr. F. Julius Fohs of the Kentucky Geological Survey has recently made a special investigation of the coal fields between Henderson, Sebree and Morganfield in order to determine the extent, number and character of, as well as to correlate and work out the structure of the coal deposits in that region. He also supervised the running of some levels in Crittenden county for use in a general report on the lead, zinc and spar deposits in that section. This summer, it is stated, he will investigate the deposits in Central Kentucky.

Mining Notes.

Messrs. John W. Price of Louisville, Ky., and J. C. Brown and W. A. Wickliffe of Muhlenberg county have incorporated the Nelson Creek Coal Co. of Nelson, Ky., with a capital stock of \$100,000.

The Mason Coal & Coke Co. of Huntington, W. Va., has been incorporated with an authorized capital stock of \$250,000 to operate coal mines in Mingo county. Incorporators of the company are Messrs. Z. T. Vinson, W. H. Thompson, T. J. Bryan, L. B. Vinson and A. E. Bush, all of Huntington.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Building in New Orleans.

A report of building operations in New Orleans, La., as published by the *Times-Democrat* of that city states that more than \$10,000,000 is involved in contracts that have been or are about to be let. Some of the big structures for which contracts were awarded a year or more ago are now nearing completion, and several of them will be ready for occupancy within a few months. Among these are mentioned the Greater Maison Blanche building at Canal and Dauphine streets, and the Canal-Louisiana Bank & Trust building at Camp and Gravier streets. The contract price for the former is stated at \$1,500,000, and for the latter at about \$400,000. The 14-story annex of the Grunewald Hotel, which will cost complete about \$1,250,000, is well under way, as is also a 10-story office building for the Baronne Street Improvement Co., to cost about \$225,000. Other buildings in course of construction are the courthouse, which will cost more than \$1,000,000 and is expected to be completed within two years, and the Carnegie Library, to cost about \$200,000. It was recently announced that the Audubon Hotel Co. would solicit subscriptions to a \$1,500,000 bond issue for the purpose of erecting a new hotel at Canal and Burgundy streets. This structure, it is understood, will be 12 stories high, of steel, concrete, stone and pressed brick, and will cost between \$1,500,000 and \$2,000,000. Plans are being prepared for the erection of a 10-story hotel for A. Monteleone, while D. Mercier, the owner of the St. Louis Hotel, is preparing to remodel that building at a cost of about \$250,000. In addition to this, it is stated that the contract for the 12-story addition to the Denechaud Hotel will be awarded within a short time, and that plans are being made for three four-story store buildings for May & Ellis. Among other operations reported is that David H. Barnes has secured contract for the erection of the proposed six-story Majestic apartment-house, to cost about \$100,000, and that H. Fichtenberg and associates are contemplating the erection of an apartment-house to cost about \$350,000.

Buys Big Timber Tract.

It is announced that T. S. Hassel of Clifton, Tenn., has purchased about 18,000 acres of land from the Decatur (Ala.) Land Co. for \$120,000. The property is located in Wayne county, Tennessee, and is estimated to contain about 51,000,000 feet of lumber, besides a large number of crosssties and a quantity of hickory and stave timber. It is stated that the purchaser has sold the white oak on the property to the Cincinnati Cooperage Co., and will probably sell the hickory and mineral rights and cut the crosssties himself.

To Develop 20,000 Acres.

Messrs. J. L. Phillips & Co. of Thomasville, Ga., advises the MANUFACTURERS' RECORD, with reference to a purchase of timber land in Thomas county, that it has bought about 20,000 acres at a cost of \$127,000. The company intends to erect a sawmill of 50,000 feet daily capacity at Thomasville, and has placed orders for construction material and all necessary machinery. It will also construct a railroad about 25 miles south from Thomasville through the timber tract.

Sabine's Exports.

Secretary Frank Robinson of the Chamber of Commerce of Sabine, Texas, has

compiled figures showing that from January 12 to March 31 a total of 8,794,456 feet of lumber was shipped from that port. Of the aggregate shipments, 7,510,327 feet went to European ports. In addition to this, shipments aggregating 30,261,158 gallons of oil were made to American and European ports, beside 16,150 tons of sulphur to points on the Atlantic coast.

Buys Timber in Louisiana.

Messrs. R. M. Smith & Co. of Parkersburg, W. Va., are reported as having purchased about 20,000 acres of hardwood timber land in Louisiana from the Indiana Realty Co. of Indianapolis for a consideration of \$350,000. It is stated that sawmills will be installed at once for the development of the timber, which is estimated to cut approximately 100,000,000 feet.

Lumber Notes.

The Retail Furniture Dealers' Association of South Carolina will hold a meeting at Columbia, S. C., on May 8 instead of May 15, as was at first intended.

At a recent meeting of the Retail Lumber Dealers' Association of West Tennessee the following officers were elected: President, W. K. Hall of Fulton; vice-president, S. B. Enoch of Jackson; secretary, R. P. Bransford of Union City.

Lumber and naval stores interests of Louisiana and Mississippi held a conference at Hattiesburg, Miss., last week with a view to organizing a selling company for rosin and naval stores. No definite action was taken with reference to the matter.

The monthly meeting of the West Virginia Sawmill Association was held at the Randolph Hotel at Elkins last week. Committees were appointed to confer with the officials of the Western Maryland, Coal & Coke and Dry Fork railroads with reference to the car supply.

A dispatch from Huntsville, Ala., states that Chattanooga contractors are establishing a crossstie camp on the Tennessee river near Guntersville, Ala., for the purpose of filling contracts to supply the Big Four system with 5,000,000 ties, which will be cut from virgin forests along the river.

Lieut.-Col. F. G. Hodgson, depot quartermaster, quartermaster's office, 26th street and Gray's Ferry road, Philadelphia, Pa., will receive proposals until May 10 for furnishing 3400 hospital tent poles, 1000 ridge and 2400 upright poles, quantities subject to 20 per cent. increase if desired by the department.

The Heber Turpentine Process Co. of Jacksonville, Fla., has been incorporated with a capital stock of \$25,000 to construct and operate retorts, machines and other devices for manufacturing turpentine, rosin, etc. Officers of the company are: President, Eduard Heber; vice-president, R. V. Douglas; secretary and treasurer, Charles A. Vuille.

Seeking Secretaryship of Organization.

Several instances have been noted lately of industrial progress organizations in need of secretaries. This is brought to mind by an inquiry received by the MANUFACTURERS' RECORD during the past week from the secretary of a commercial club in the South who seeks to engage his services in a large field of endeavor. The man in question has been entirely successful with more than one business organization, and offers to submit the strongest kind of recommendatory letters. Commercial clubs, boards of trade or other similar associations desirous of corresponding with this applicant for position can address "Organization Secretary," care of the MANUFACTURERS' RECORD.

MECHANICAL

Contractors' Supply & Equipment Co.

Building construction of today and other avenues of construction activity is witnessing an extensive usage of concrete. Therefore, concrete-working mechanical apparatus is in regular demand, and some reference to a plant where such equipment is manufactured is of timely interest. The plant in reference is where the Smith mixer and concrete machinery is made as sold by the Contractors' Supply & Equipment Co. of Chicago, offices at 520 Old Colony Building; offices in New York at 170 Broadway.

An illustration of the plant is presented herewith. The following is a description of the establishment:

The new shops of the T. L. Smith associated companies comprise a structural-steel frame building and three reinforced concrete frame buildings along the tracks of the Chicago, Milwaukee & St. Paul Railway, in the northwestern part of Milwaukee, Wis. The three reinforced concrete frame buildings contain a boiler shop, a machine shop and a foundry, of which the chief output is Smith concrete mixers. The structural-steel frame building will contain a machine shop in which Symons stone crushers will be assembled. The four buildings are in a row along the railroad tracks and are at right angles to the latter. A switch track extends through the end of the boiler shop, the machine shop and the crusher shop buildings, enabling materials and supplies to be delivered on the floor of the shops from cars in the latter, and finished products to be loaded on cars on the same track.

The boiler shop is 80x176 feet in plan and is divided by two rows of columns into three longitudinal bays, one 26 feet wide at the center, with a 27-foot bay on each side. The central bay is surmounted by a lantern which is six feet high and covers the entire width of the bay. The side bays have a clear height of 18 feet from the floor to the bottom of the girders carrying the roof beams, while the clear height of the central bay is 24 feet 7½ inches. The reinforced concrete frame of the building has four rows of columns, one in each side wall and the two down the center of the building, with the columns in the rows 20 feet apart on centers. The building has curtain side and end walls of brick, which are carried at all door and window openings by beams between the columns of the frame. The roof is a four-inch reinforced concrete slab carried by beams and girders also supported by the columns of the frame. It is finished with composition roofing covered with tar and gravel. The sides of the lantern are entirely taken up with windows between the columns which carry the roof girders. The sides of the building also have a large amount of window space, with the result that all parts of the shop are well lighted.

Boiler plates and other materials used in the construction of the mixer drums and of the vertical tubular boilers for the mixer are brought into the building on the switch track which extends through the end transverse bay of the latter. This track is depressed about two feet below the floor of shop so that heavy materials may readily be unloaded from the cars. An electrically-operated six-ton Pawling & Harnischfeger crane, which spans the central bay of the building and runs the full length of that bay, enables materials to be handled from the cars to any point in the bay. This crane is also used in moving completed boilers, mixer drums and other heavy work. It runs on rails carried by longitudinal reinforced concrete girders between the two central rows of columns of the building frame.

One side bay of the building contains a

number of motor-driven punches, rolls and shears used in preparing plates for the construction of mixer drums and boiler shells. In the other side bay and the central bay the riveting is done, portable pneumatic hammers being used for the work on the mixer drums, and a hydraulically-operated riveter for most of the work on the boiler shells. The hydraulic riveter is set up in one panel of the side bay, which panel is surmounted by a lantern extending 15.25 feet above the roof over the side bay of the building. A traveling hand-block hoist running on rails carried by concrete girders in the frame of this high lantern enables assembled boiler shells to be handled readily at the riveter. A hand-block hoist also travels in the same side bay from the riveter to the end of the building. A narrow-gauge track extends the length of the bay of the building, and is connected by a turntable in the transverse bay of the latter to a track leading to the machine shop some 250 feet away. The completed mixer drums and boiler shells are assembled in the machine shop, to which they are carried on cars on this track.

The foundry building is 80x100 feet in

wheelbarrows pass over a scale on which they are weighed; they are then raised by an electrically-operated elevator to a concrete charging platform around the cupola, this floor being separated from the main room of the foundry by brick walls.

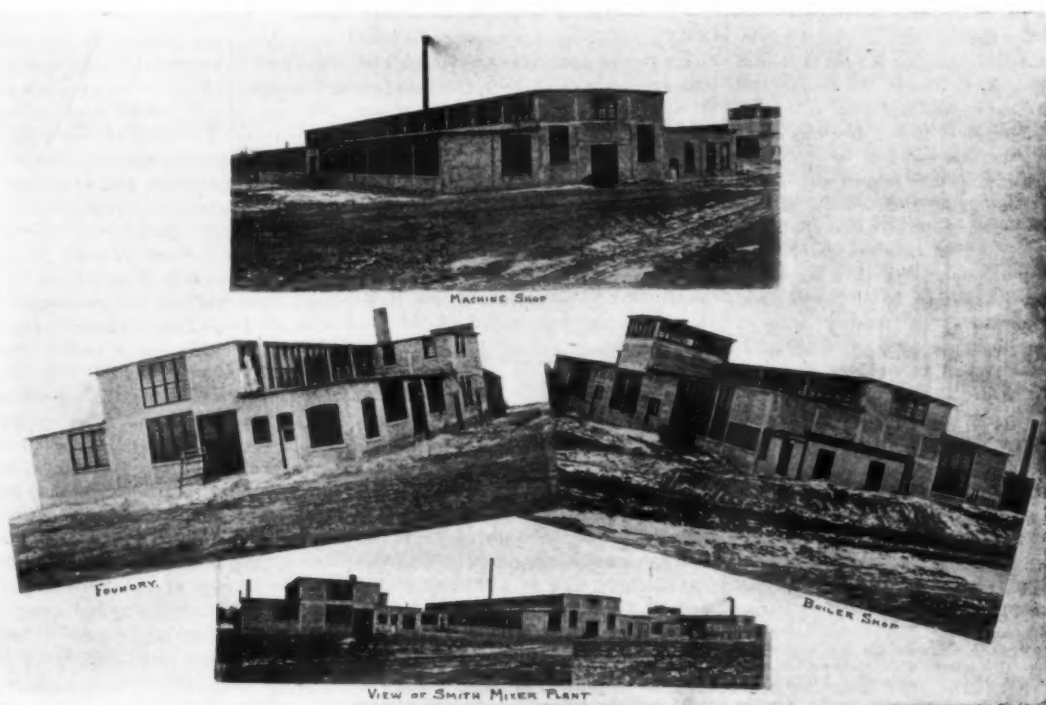
An electrically-operated five-ton Pawling & Harnischfeger crane spans the central bay of the building and runs the full length of the latter. The rails of the runway of this crane are carried by heavily-reinforced concrete girders between the two central rows of columns. The crane is used to handle ladles of molten metal from the cupola to the point where a mold is to be poured, and also in moving heavy flasks and castings. A hand-block hoist is placed on the crane bridge for auxiliary lifting.

A rattler for cleaning small castings is installed in a temporary addition at the rear of the building. This rattler and the fan which furnishes blast for the cupola are driven by a motor in the foundry-room. The finished castings are carried to the machine shop on cars on a narrow-gauge track, which continues through a transverse bay of that shop and connects with the track from the boiler shop.

crane, which spans the central bay of the building and travels the full length of the latter, is used, however, in handling supplies and materials from the cars and in loading machines for shipment. This crane is also used in handling heavy parts of the mixers from place to place in the shop.

The central power plant for the three buildings is in the end of one side bay next to the switch track. This plant is in a boiler-room, separated from the remainder of the shop by brick walls, and an engine-room shut off with temporary wooden partitions. The boiler-room contains two 150-horse-power Atlas water-tube boilers. At the side of the settings of these boilers is a coal-storage space with a capacity of about three cars, into which coal is unloaded by hand from the switch track.

The engine-room contains a 150-horse-power horizontal Reynolds Corliss condensing engine belted to a 240-volt, 90-kilowatt Bullock generator, and a steam-driven single-stage 12x12x12-inch automatically-regulated Heron & Bury air compressor. The generator supplies power for operating all the mechanical equipment of the foundry machine shop and



CONTRACTORS' SUPPLY & EQUIPMENT CO.

plan, and is 60 feet from the machine shop and on the opposite of the latter from the boiler shop. The front of the building is in line with the front of the machine shop building, so that the former building does not extend back to the railroad tracks. The rear end of this building is arranged, however, so an addition which will reach back to the tracks can be made to it. The general features of the construction of the building are very similar to those of the boiler shop. The interior is divided by two rows of columns into three longitudinal bays, one at the center 32 feet wide, with a bay 24 feet wide on each side. A lantern with windows in all of the space between the columns carrying its roof surmounts the central bay. The side walls of the building also contains a large amount of window space.

The output of the foundry is almost entirely the cast-iron parts of the concrete mixers made in the plant. A 10-ton cupola is set up in one of the rear corners of the building in a lantern built over the end of the bay on that side. Coke and pig iron are delivered in storage piles along the switch track back of the building and are hauled into the latter in wheelbarrows as required. The incoming

The machine shop is 100x260 feet in plan, and is divided by two rows of columns into three longitudinal bays, one 40 feet wide at the center, with a 30-foot bay on each side. The central bay is surmounted by a lantern which is 8.5 feet high at the sides and covers the entire width of the bay. The side bays have a clear height of 15 feet from the floor to the bottom of the girders carrying the roof beams, while the clear height of the central bay is 25 feet 4 inches. The sides of the lantern over the central bay are entirely taken up with windows between the columns which carry the roof girders. The sides of the building are also entirely taken up with windows between the columns, the bottom line of these windows being 4.5 feet above the floor line. The absence of adjacent buildings and the large amount of window space made possible by the type of construction render the interior of the shop particularly light, as may be seen in one of the illustrations.

The switch track extends through the rear transverse bay of the building, and is depressed somewhat below the floor of the latter to enable cars to be loaded and unloaded with greater ease. An electrically-operated 10-ton Pawling & Harnischfeger

boiler shop, and also for the enclosed arc lamps used in lighting the buildings. The compressor furnishes air under pressure for operating the pneumatic hammers in the boiler shop, and may be utilized for other equipment later. The exhaust steam from the engines is passed through a Crawley feed-water heater, from which it goes to the steam coils used in heating the buildings. These are placed along the walls immediately beneath the windows and along each side of the central bay at the top of the row of columns along the latter. The condensed water is drawn back from these coils to the feed-water heater and returned to the boiler, two filters inserted in the circuit removing the oil.

The parts of the mixers are finished in the two side bays, and the assembling is largely done in the central bay. A 30x60-foot blacksmith shop, in which the mixer frames are cut, drilled, riveted and forged, is directly across from the power plant, and is separated from the machine shop by wooden partitions. This blacksmith shop contains two power forges, a combined punch and shear, a multiple drill and a Smith & Post cut-off saw, all driven from a line shaft operated by a 10-horse-power motor.

Next to the blacksmith shop is a group of eight turning, shaping and boring machines belted to a line shaft driven by a 10-horse-power motor. These machines are used to finish the trunnions which carry the drums of the smaller-size mixers. These trunnions have brass bushings in

the completed crushers after they are assembled.

The Symons gyratory crusher has a heavy circular outer case fitted with chilled-metal concaves, forming the surface against which the crushing is done. At the center of the case and concentric with it is a stationary

ment is thus made possible, and any change can be made in a few minutes.

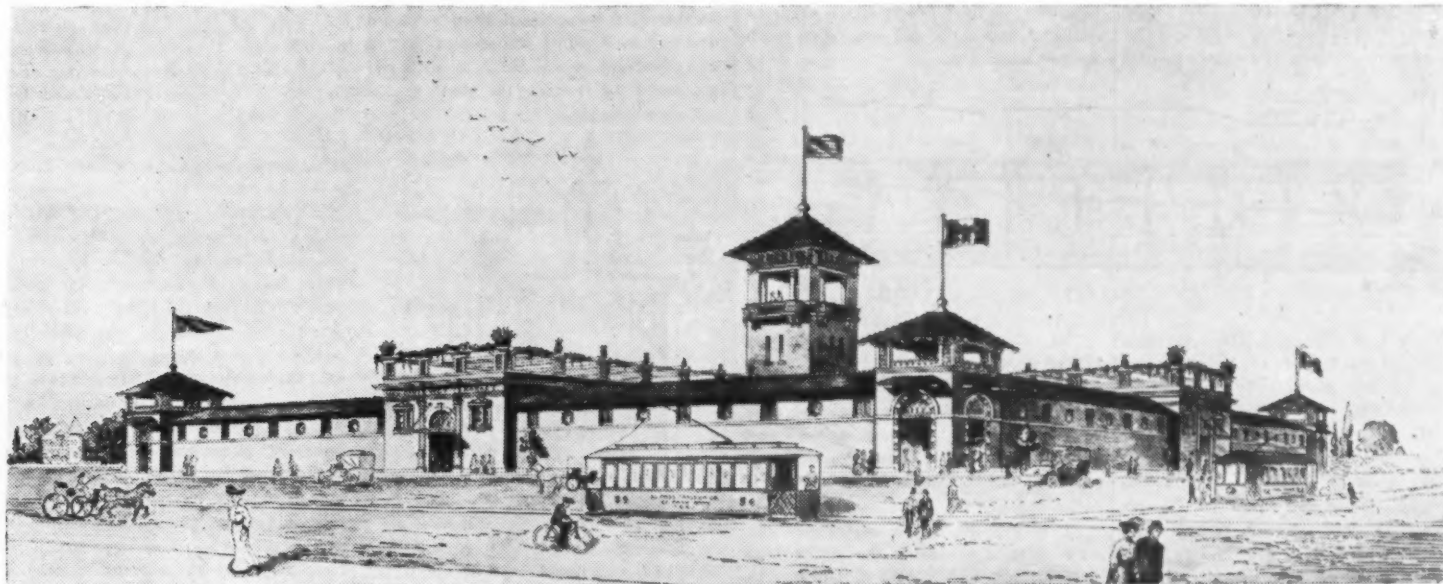
Modern Market for El Paso.

Among the numerous avenues of improvement to which attention has been directed during recent years is the public

sure is available hand or power pump can be used.

A most important feature in the International filter is that the filter discs are locked all around the edge, so that no unfiltered water can pass through.

No alum or other chemicals are used in



MODEL MARKET FOR EL PASO.

all bearings, the latter being carefully bored to insure a proper fit for these bushings. They also have their surfaces which come against the frame of the mixer machined to form a good contact with the parts of the frame. This group of machines is also used in finishing smaller parts of the mixers.

The trunnions of the larger mixers and the heavy cast-iron rings on which the drum of each mixer is mounted are turned and finished in larger turning and boring machines in the opposite side bay of the building. These machines are placed in two groups, each group being driven from a line shaft by a 10-horse-power motor. Included in the two groups are a vertical Niles boring machine with a seven-foot swing, a five-foot Bullard boring mill, a Hamilton lathe and a Fay & Scott turret lathe.

The trucks on which the mixers are mounted are built in the end of the building distant from the switch track. The mixer engines are delivered to the shop in carload lots and are temporarily stored in the central bay of the building at the track end of the latter. The mixers are erected at any convenient point in the central bay, the crane having sufficient capacity to handle the largest-size mixer. The shop has a capacity of producing 100 mixers a month when working 10 hours a day.

The building in which the Symons gyratory rock crushers are built is entirely separate from the other three buildings. It is 80x100 feet in plan, and has a structural-steel frame, with brick side walls, the steel frame being adopted instead of one of concrete owing to the necessity of erecting the structure during the middle of the winter. At one end of the building is a low two-room addition, in one room of which a boiler for heating will be installed; the other room is for a blacksmith shop. The other end of the building is temporarily covered, and will be extended 150 feet as soon as necessary. The chilled castings required in these crushers are produced abroad from the works in a foundry making a specialty of such work. These castings are quite heavy and will be delivered on a switch track extending into the building. A crane will span the central bay of the latter, and will handle the parts of the crushers during assembly and

vertical steel shaft with a cast-steel eccentric sleeve rotating around it. This sleeve is geared at its lower end, and as it turns imparts to a hollow crushing head a positive oscillating movement, which crushes the stone between this head and the chilled concaves in the case.

A set of hardened-steel rolls held in proper alignment by a suitable cage affords a roller bearing between the eccentric sleeve and the fixed central shaft. A similar set of rolls provides a like bearing between the sleeve and crushing head. The eccentric sleeve and the rolls extend the entire length of the crushing head, so the central shaft is in no sense a lever. The length of the shaft can therefore be greatly shortened, with a corresponding reduction in the height of the machine. This saving in height is still more striking when the bottom chute, which is separate and removable, is not included. The convenience of delivering stone to the crusher afforded by the reduced height is apparent. The reduction in height also permits a crusher of this type, having a 10-inch receiving opening, to be made with a shipping weight of only 17,000 pounds. Furthermore, a machine of this size may be completely assembled and made ready to set in place when shipped.

The stationary main shaft makes a strong central pillar brace, clamping the crown piece and main frame together. The greater part of the load borne by the central shaft is thrown against the lower support of the latter in the main frame, and the crown piece can thus safely be made in the form of a two-armed spider.

The crushing head and adjacent supports provide a dustproof case for all working parts. A small oil pump is belted to the shaft, which drives the crusher and delivers oil from a tank to the top of this case, from which it returns by gravity to the tank. All working parts are in this manner kept drenched with oil.

The crusher head rests on a broad angle ring mounted so it will turn on a circular cam support carried by the main frame. The head may be raised or lowered by turning this angle ring, a simple adjustment being made above at the same time to accommodate this movement and to hold the head a corresponding distance from the crown piece. A large range of adjust-

ment is thus made possible, and any change can be made in a few minutes. The demand for convenience and cleanliness in handling and preserving food is being given consideration in all parts of the country. In this connection the accompanying view is presented of a proposed central market-house to be erected at El Paso, Texas. The Mexican Market Co., 426 South El Paso street, has the enterprise in view, and refers to the building as follows: The structure will cost \$100,000, and will front 1040 feet on a main thoroughfare about 10 blocks from the City Hall, on International Electric Railway. It will be fireproof, with cement floors and an iron-girder roof. There will be installed a 20-carload refrigerator plant, for which estimates will be invited. This cold-storage capacity will enable the company to handle carload lots of vegetables, fish, meat and oysters, mangoes, aguacates, fresh figs and other foods from the interior of Mexico, and various classes of food products, both fish and flesh, from all parts of the country. Heating will be provided by steam equipment, and lighting will be effected by electricity. Probably bids for erection of market will be invited about June 1.

The International Filter.

An improved device now offered is the International filter. It can be used for the greatest variety of liquor as well as water, and can be changed from the filtration of one to that of another without loss of



INTERNATIONAL FILTER—CLOSED.

time or material. It can be cleaned in two minutes.

With gravity pressure the unfiltered liquor can be drawn or syphoned from barrels or tanks placed a floor or more above the filter. Where no gravity pres-

connection with the International or in the filter medium. This filter is sanitary, because the discs are discarded when clogged and replaced with fresh ones, so that the same as a new filter is always in use, preventing any growth of bacteria.

The International filter is giving satis-



INTERNATIONAL FILTER—OPEN.

faction under exacting conditions in this country and in others. It is manufactured by the International Filter Co., 17th street and Wabash avenue, Chicago. Note the two accompanying views of this filter, open and closed.

Lafayette Moore Drykilns.

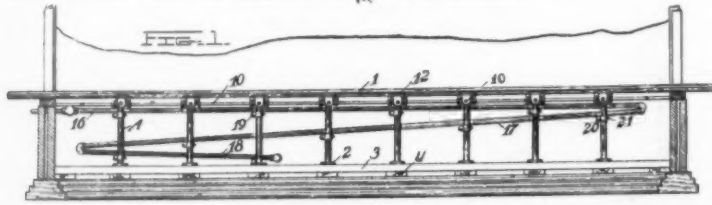
Lumber manufacturers interested in drykilns are advised that Lafayette Moore ("Drykiln" Moore) of Jacksonville, Fla., has recently patented improvements to drykilns. Note the two accompanying illustrations.

Regarding Moore kilns, the L. Moore Drykiln Co., by C. J. Williams, Jr., writes as follows:

"The longitudinal view shows our pipe system installed, and the other view shows two kilnrooms we are now building for the large sawmill of West Coffee & Co. at Inverness, Fla. We are building more kilnrooms than this, but can only show two rooms in this picture. The view shows our iron trestle work installed and our system of steam-piping installed in kiln. The walls of kiln building are only about four feet high and not yet completed. We will review briefly the parts of the iron trestle work and of what they consist: Two-inch common black pipe is

used for posting; a cast-iron-bottom plate made with a slightly-raised stud in center for the two-inch pipe to fit over; a top four-lug cap with a slightly-raised place or stud in center to fit down into the two-inch pipe or post. The top lug has a hole in each lug for a three-quarter-inch iron rod to pass through and be fastened on the inner side by nut and washer. The three-quarter-inch rods run lengthwise the kiln under each track and crosswise the

very long. The result is that it will scorch out and give way in the course of two or three years, and repairs are constantly being made. With the iron foundation repairs are not required, and it is by far the cheapest in the long run. Where the kiln building is constructed of brick or artificial stone and the iron trestle work installed, you have practically a fireproof kiln, and enables the mill man to get much cheaper insurance.

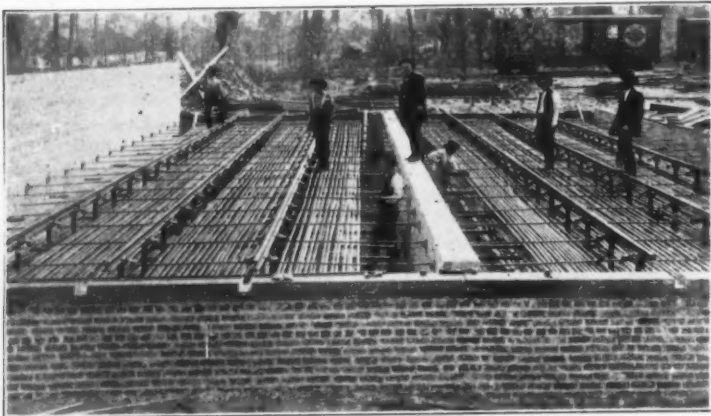


LONGITUDINAL VIEW—LAFAYETTE MOORE DRYKILNS.

kiln every four feet, and extend through wall of kiln building, where it is fastened on the outside securely by a cast-iron washer and nut. The rod running lengthwise the kiln also extends through the wall and is fastened at end of kiln. In this way the track is held in its place, and it is impossible for it to fall or become shaky. The rail or track through kiln lies on top of the top lug, and two rail clips are placed on each side of rail and two bolts run through clip and top lug

"Mr. Moore has been actively engaged in the drykiln business since 1877. He was first with Currin & Wolfe Company of Chicago, when the drykiln was in a very crude stage. He has been granted five patents for improvements in drykilns, making improvements each time over preceding patent.

"The sawmills in the yellow-pine district of Georgia during the period from 1885 to 1895 had a good deal of trouble in saving their boards on account of not



TWO LAFAYETTE MOORE KILNROOMS.

and are fastened on the under side by nut and washer. Twenty-five to 30-pound rail is used for track rail, which makes everything strong and substantial. A one-and-one-half-inch pipe lies on the pipe hanger for the support of the steampipes in kiln, and it can be raised and lowered so as to give the steampipes the proper drain.

"The great advantage of this patent is that it can be installed almost as cheap as wood, if not cheaper in some places, on account of the prevailing high price of

having a drykiln that would properly dry their stock, and Mr. Moore has perhaps done more than any other man in helping the yellow-pine mills to get a kiln that would properly dry their product."

Stewart Iron Works Co.

Beginning in a small way a number of years ago the manufacture of iron fence, the Stewart Iron Works Co. of Cincinnati, Ohio, now has an extensive plant. See accompanying view. The company



STEWART IRON WORKS CO.

lumber required on this kind of work. At the same time it is very simple and can be put together very easily. The castings can be manufactured very cheap, and there is nothing expensive about the two-inch pipe for posting and one-and-one-half-inch pipe for support of steampipe and the three-quarter-inch iron rods.

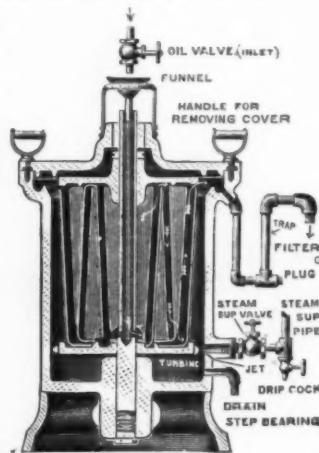
"All interior parts of a drykiln are subjected to from 200 to 250 degrees of heat constantly, and it stands to reason that wood cannot stand this degree of heat

offers the three-ribbed channel rail, of which it is patentee and manufacturer. In the plant is an able corps of artisans always at work making new designs and improving the quality of their work. In addition to fences the company manufactures double-entrance gates, cemetery enclosures, reservoir vases, iron and wire lawn settees, iron chairs, wire chairs, lawn fountains, iron window guards, wire window guards, counter railing, lawn rollers, stall guards, feed mangers, hayracks,

coal-chute and iron cellar doors, grilles, electric-lamp standards, vault doors and safes, etc.

Turbine Centrifugal Oil Filter.

The Oil & Waste Saving Machine Co. is manufacturing a turbine centrifugal oil filter constructed on a new principal for cleaning oil; is operated with a steam turbine, which requires no care except to turn the steam on and off. The oil is run into the filter through the shaft of the



TURBINE CENTRIFUGAL OIL FILTER.

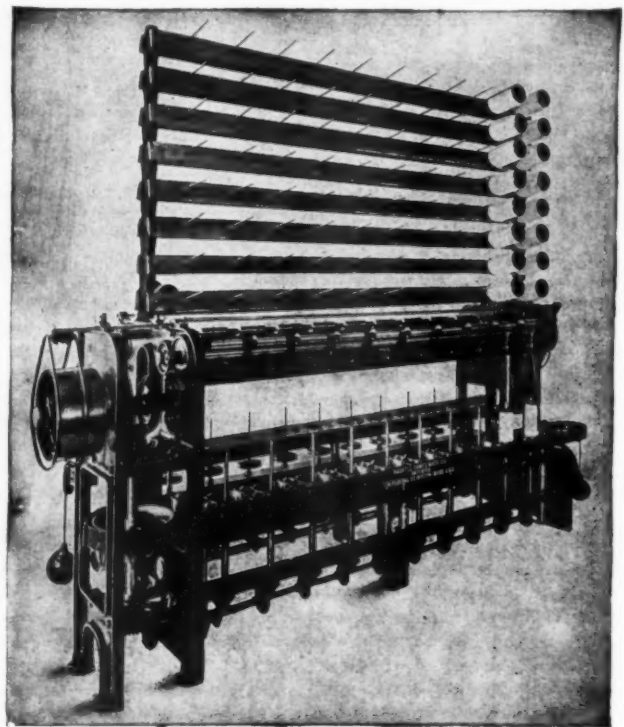
turbine while in operation. It is then sprayed on the filtering cloth and filter paper, which is revolved by the turbine. The centrifugal force carries the oil through the filtering materials over the cones to the outlet.

The oil continually passes through clean filtering material, for the reason that as soon as the filtering materials become dirty or dammed up at the point where the first material is exposed, or near the spray, it then takes a new course through the clean filtering materials.

Improved Tubing Twisting Frame.

An economical improvement in textile machinery is being introduced to the cotton, flax and jute manufacturers by the Haskell-Dawes Machine Co., 176 Federal street, Boston. It is an improved high-speed tubing twisting frame of 20 spindles, built on new principles and intended especially for the production of perfect strands above three-ply No. 10 yarn, and will prove of value in the forming of the larger strands required for woven hose, braided cordage, cotton duck and other products. The machine was referred to at length in the MANUFACTURERS' RECORD of January 3.

The manufacturer says: "The improved tubing twister frame has demonstrated its superiority over old methods of twisting. These frames are built with 20 spindles each (10 to each side), 5x7 bobbin, occupying a floor space of three feet three inches wide by eleven feet long by four feet high (without creel), and will run easily at a speed of 2300 revolutions per minute. The marked and positive advantages are: A positive drive, equal to gearing; a positive yet sensitive friction or take-up; producing tubed work with a tube which gives the finish of a solid tube and yet allows knots, splices and other defects to pass without breaking down the work; product can be changed from right to left-hand twist with little trouble or waste of time; can use a regular bobbin or one with a conical head, the latter being desirable when the product is to be balled, reeled or finished in cops, the product leaving the bobbin as freely as from a cone or tube; will produce work 25 per cent. stronger than if made on a ring twister; the 5x7 bobbin on these twisters will hold four times as much work as the 4x5 bobbin on a ring twister, this being due to the strong tension, making a hard bobbin and without a knot; this work can



IMPROVED HIGH-SPEED TUBING TWISTING FRAME.

The filter can be taken apart in a few minutes and the filtering materials cleaned and used over and over again, with the exception of the paper through which the oil passes, and this is so cheap that it is not worth reusing.

The Oil & Waste Saving Machine Co. has its offices at 1307 Real Estate Trust Building, Philadelphia, Pa.

Subscribe to the MANUFACTURERS' RECORD. Price \$4 a year, or six months for \$2.

be put at once onto the beaming creel, saving spooling and knots, and also having the stretch out of the work, which for duck, woven hose or braided work is a very important feature."

The twister will be in operation at the textile-machinery exhibition of the American Cotton Manufacturers' Association at First Regiment Armory, Philadelphia, May 13 to 18, and also at the Haskell-Dawes Machine Co.'s works, Frankford Junction, Philadelphia.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

ALABAMA.

Albertville, Ala.—Water-power Electrical Plant.—Sand Mountain Electric Co. has been incorporated with capital stock of \$50,000 and will issue bonds for \$50,000 for the purpose of developing water-power on Short creek near Albertville, obtaining from 500 to 1000 horse-power for transmission by electricity to Albertville, Guntersville and Boaz. Engineers are wanted to make complete survey and estimates of necessary construction work. Edgar O. McCord of Albertville is president and general manager; G. M. E. Mann of Boaz, secretary. For further particulars address the president.*

Alexander City, Ala.—Cotton-yarn Mill.—Russell Manufacturing Co., noted recently as contemplating the installation of cotton-yarn-spinning equipment, is now obtaining estimates on the machinery and will soon make a definite decision.*

Bessemer, Ala.—Iron Mines.—Birmingham Iron Co., Birmingham, Ala., has secured control of the ore mines on Red Mountain which have been operated by the Birmingham Mining & Contracting Co., and will install improved machinery and erect additional buildings. It is also understood that the company has leased the Star Cahaba coal properties at Parkwood, Ala. Will Beck will be superintendent of ore mines; Edgar L. Adler, general manager.

Birmingham, Ala.—Mechanical Appliances. Hughes Steam Grate Shaker Co., incorporated with \$50,000 capital stock; C. R. Atkins, president and treasurer; H. E. McCormack, vice-president, and J. G. Hughes, secretary.

Birmingham, Ala.—Water Supply.—Edgar B. Kay, engineer employed by local industrial corporations to make systematic survey and report on the feasibility and cost of obtaining water supply for the Birmingham district from the upper reaches of the Warrior river, has submitted a detailed statement. According to the report, 1,000,000 gallons per day, or more if required, could be drawn by gravity flow from Locust Fork and

its tributaries, about 50 miles from Birmingham, and the total cost of building aqueduct, together with all storage basins, structures and regulating works, would not exceed \$1,295,000; J. C. Maben, president Sloss-Sheffield Steel & Iron Co., chairman of committee.

Columbia, Ala.—Hardware.—Porter Grant Hardware Co. incorporated with \$6000 capital stock by E. R. Porter, E. J. Buntin, J. W. Grant and others.

Duncanville, Ala.—Sawmill.—D. O. Parker will probably rebuild sawmill and cotton gin recently reported burned at a loss of about \$4000.

Eutaw, Ala.—Timber Development.—McLean Lumber Co., Chattanooga, Tenn., has purchased for development about 5000 acres of timber land in Greene county from J. J. Dew and an additional tract from E. F. Bouchelle of Boligee, Ala. It is understood that the company will build and operate a sawmill at Demopolis, Ala., to which point the timber will be barged down the Bigbee river.

Fort Payne, Ala.—Pin and Bracket Plant. Alabama Black Locust Pin Co. has been organized with Earl Cochran president and John G. Bohling secretary and treasurer. A large building has been erected, and the company is now manufacturing locust and oak insulator pins and oak brackets.

Gadsden, Ala.—Iron-ore Development.—J. M. Elliott of Gadsden and C. R. Chapman, New York, N. Y., are reported as having begun the development of iron-ore properties. Two shafts have been sunk near Tumlin Gap, which will be operated on a commercial basis, probably under lease.

Gadsden, Ala.—Furnace.—Reported that St. Louis parties have purchased the Quinn Furnace Co. and have elected William L. Grace, St. Louis, Mo., and Gadsden, president and treasurer; H. A. Fuller, St. Louis, Mo., vice-president, and Oliver J. Grace, St. Louis, Mo., and New York, secretary. John P. Marshall has been appointed superintendent of furnace.

Guntersville, Ala.—Timber Development.—John Bogenshott, Chattanooga, Tenn., is reported as having purchased for development 3000 acres of timber land at approximately \$20,000. Purchase was made for a syndicate which has contract to furnish 5,000,000 railway cross-ties, and the timber will be used for this purpose. Six sawmills are located on the tract.

Heflin, Ala.—Cottonseed-oil Mill.—Commercial Club is promoting the establishment of cottonseed-oil mill and mixing plant.

Jasper, Ala.—Cottonseed-oil Mill.—Martin O'Rear contemplates erecting cottonseed-oil mill.

Lynn, Ala.—Coal Mines.—Pierce Coal Co., recently noted as purchasing coal lands in Winston county, has present mines fully equipped; later will expand developments. Head offices are at Huntsville, Ala., and mines and shipping points at Lynn; officers, N. L. Pierce, president; J. E. Pierce, manager.

Mobile, Ala.—Car Works and Furniture Factory.—It is proposed to arrange for the establishment of a car works and a furniture factory, and a practical man is wanted to take an interest and manage the enterprise. Joseph Espalla, Jr., & Co. can be addressed for information.

Mobile, Ala.—Lumber.—Ohio-Pennsylvania Lumber Co. incorporated with \$5000 capital stock by Charles Anderson, C. M. Kirk and L. E. Heisler.

Montgomery, Ala.—Showcase Factory.—Blakey-Well Manufacturing Co., operating showcase factory at Irmadale, has decided to erect new plant. Main building will be 73x100 feet; two stories high with basement; equipped with modern machinery; daily capacity 10 to 12 showcases; Bert C. Well, president.

Montgomery, Ala.—Printing.—Southern Printing Co. incorporated with \$10,000 capital stock by Jesse M. Williams, Edward M. Noble and R. T. Goodwyn.

Montgomery, Ala.—Paving.—Sealed proposals will be received until May 20 for paving sidewalks with hexagon blocks or Schilling pavement and for all necessary curbing and storm-water sewers in connection therewith on portions of Hamner and Holt streets and Finley and Highland avenues; R. S. Williams, City Treasurer.*

North Birmingham, Ala.—Lumber.—North Birmingham Lumber Co. incorporated with

\$10,000 capital stock; W. T. Estes, president, and C. B. Hadden, secretary-treasurer.

Selma, Ala.—Abattoir.—Selma Union Slaughter-house & Packing Co. incorporated by L. G. Clark, Morris Konigstahl and J. C. P. Haelnz.

Selma, Ala.—Printing, Bookbinding, etc.—Selma Stationery Co. incorporated with \$10,000 capital stock. Joseph S. Lamar is president, E. E. Rogers vice-president, G. T. Golsen secretary and W. H. Plant treasurer and general manager.

Stevenson, Ala.—Electric-light and Water Plant.—Franchise for supplying electricity and water to city has been granted to Graham Bros.

Sunflower, Ala.—Sawmill.—Sunflower Lumber Co. will establish sawmill with daily capacity of 25,000 feet to develop 4000 acres of pine and hardwood timber lands. It is proposed to add a kiln and probably a planer. C. L. Flora, Flora Bros., Tiffin, Ohio, is general manager.

Vandorn, Ala.—Cement Plant.—Reported that J. D. Riggs, Selma, Ala.; B. F. Sailer, Rome, Ga.; J. L. Means, C. H. P. Sample and Joseph Bradshaw, all of Shreveport, La., have purchased about 400 acres of land on which to establish cement plant to have a daily capacity of about 1000 barrels. It is stated that they have also negotiated for coal lands on the Warrior river and will obtain coal for the plant by barges and short railroad from Vandorn to the river, shipping the product to Mobile, Ala., by the barge line.

ARKANSAS.

Arkansas City, Ark.—Sawmill and Shingle Plant.—L. L. Lieber, Monroe, La., is erecting sawmill and shingle plant.

Batesville, Ark.—Excelsior Plant.—A. K. Goodnight will install excelsior plant; building of sheet steel will be erected; capacity, seven tons per day of 10 hours. Address until October 15, Kempton, Ind.; afterward, Batesville.*

Batesville, Ark.—Stave Plant.—Mt. Olive Stave Co. will install new machinery and make other improvements to its plant.

Boynnton, Ark.—Stave and Heading Mill.—Boynnton Stave & Heading Co. has been organized by O. B. Gwin and L. D. East, both of Kennett, Mo. It will build a large stave and heading mill, equipped with two stave knives, drag saw, etc. Extensive drykiln will also be installed.

Charleston, Ark.—Lumber.—Minden Lumber Co. incorporated with \$20,000 capital stock by Theodore Minden, N. L. Minden, Forest Ward, John Classen and others.

Clarksville, Ark.—Cannery.—Dr. J. M. Byrd is organizing stock company to install canning factory.

England, Ark.—Sawmill.—C. E. Secrest and W. F. Miller will establish mill for sawing hardwood.

Foreman, Ark.—Gas Plant.—D. L. Winters and associates have secured franchise for furnishing natural gas.

Fort Smith, Ark.—Paving.—Sealed proposals will be received by Board of Public Affairs at office of Mayor until May 6 for construction of about 6550 square feet of concrete sidewalks around City Park and 1537 square feet of concrete sidewalk around Mary Barnes Park; Fagan Bourland, chairman, and Henry Kuper, Jr., secretary of board.

Hot Springs, Ark.—Lumber.—Molina Lumber Co. incorporated with \$25,000 capital stock. J. W. Ferguson is president, T. W. Gibbs vice-president and A. L. Ferguson secretary-treasurer.

Hot Springs, Ark.—Pottery.—Ouachita Potter Co. is beginning to install permanent plant for manufacturing high-art pottery, interior decorations, ceramic work generally, etc. It will erect later on a plant for making press and glazed brick, roof and ornamental tiles; offices at 606 Century Building, St. Louis, Mo. (See mention of company under St. Louis.)

Hot Springs, Ark.—Sewerage.—Commissioners of Improvement District 24 will receive bids until May 20 for installing sewer; G. M. French, engineer; R. P. Morris, chairman of board.*

Junction City, Ark.—Lumber Manufacturing, etc.—Harris Lumber Co. incorporated with \$6000 capital stock; D. F. Harris, president; J. J. Stinnett, vice-president, and M. A. Nelson, secretary-treasurer.

Markley, Ark.—Cannery.—Company has been organized to establish canning factory

with daily capacity of 10,000 cans by J. B. Rhodes, J. H. Buell, H. F. Blue, Frank Beck and others.

Mountain View, Ark.—Spike and Hub Factory.—M. W. and F. A. Brannock, Bloomfield, Mo., will establish spoke and hub factory.

Parkdale, Ark.—Bridge.—Parkdale Bridge Co. incorporated with \$3500 capital stock by J. W. Morris, president; W. E. Barnes, vice-president; P. T. White and others.

DISTRICT OF COLUMBIA.

Washington, D. C.—Power-house Stack.—Capital Traction Co. has awarded contract to James I. Parsons, 13½ street and Pennsylvania avenue N. W., for construction of reinforced-concrete stack 10 feet in diameter and 175 feet high at its power-house at Grace and Potomac streets N. W.; cost \$5000.

Washington, D. C.—Storage.—Pollock Drayage & Storage Co., 1741 D street N. W., incorporated with capital stock of \$25,000 by G. A. Bonnett, J. H. Bradley, L. T. Pollock, R. H. Hagner and R. S. Menor.

FLORIDA.

Denver, Fla.—Turpentine Plant and Sawmill.—Castle Timber & Naval Stores Co., recently reported as organizing and incorporating, will erect and equip sawmill and naval stores at cost of \$15,000; product and capacity to be 1000 barrels turpentine and 3000 to 4000 barrels rosin annually; president, W. H. Cook; secretary, G. W. Otterson; general manager, R. C. Middleton. (Mentioned March 28 under Crescent City, Fla.)

Esto, Fla.—Cottonseed-oil Mill and Fertilizer Factory.—Holmes County Union will build co-operative cottonseed-oil mill and fertilizer factory. T. R. Moody is a member.

Jacksonville, Fla.—Terminals, etc.—Seaboard Air Line Railway is proceeding with construction of its extensive terminal facilities. Contract has been awarded to F. A. von Eberstein & Co., Savannah, Ga., for the erection of terminals along the river front, including large piers for handling freights, wharves and slips for lumber vessels. As recently stated, Board of Public Works approved plans submitted by W. L. Seddon, Portsmouth, Va., chief engineer of the company, for proposed viaduct, and bids will soon be received. Company also proposes to erect two large brick freight warehouses and office buildings combined; roundhouse, with small machine shop attached; machine and erecting shop, 117x380 feet; wheel, rod and tender shop, 65x250 feet, with extension 60x66 feet, etc. (Referred to April 25 and previously.)

Jacksonville, Fla.—Concrete Building Materials.—Jacksonville Concrete Co. incorporated with \$20,000 capital stock. Fred Ogram is president, H. A. Renfro vice-president and A. J. Hedrick secretary-treasurer.

Jacksonville, Fla.—Turpentine Extraction, etc.—Heber Turpentine Process Co. incorporated with \$25,000 capital stock; Edward Heber, St. George, Ga., president; R. V. Douglas, vice-president; Charles A. Vulle, secretary-treasurer, all of Rockledge, Fla.

Pensacola, Fla.—Water-works, Paving and Sewerage.—City has purchased plant of Pensacola Water Co. at \$187,500, as recently (prospectively) noted. Bonds to amount of \$250,000, already authorized, will soon be sold, \$62,500 of this amount being available for improvements to water system purchased. City will also sell \$100,000 of bonds for paving and \$100,000 for additional sewerage. Charles H. Bliss is Mayor.

Rockwell, Fla.—Terminals.—Port Inglis Terminal Co. has increased capital stock from \$1,000,000 to \$2,000,000; Ralph Barker, secretary.

GEORGIA.

Abbeville, Ga.—Cotton Gin and Warehouse. Farmers' Union Gin & Warehouse Co. incorporated with \$5000 capital stock by W. A. Keen, A. J. Law, J. C. Stuckey and others.

Atlanta, Ga.—Clothing Factory.—The Beau Monde Company incorporated with \$3000 capital stock and privilege of increasing to \$50,000 to manufacture various kinds of garments, etc., by J. A. Riley, J. S. Price and R. I. Price.

Augusta, Ga.—Wagon Factory.—Horton Wagon Manufacturing Co. organized with \$10,000 capital stock to manufacture wagons and other vehicles; E. O. Horton, manager.

Bishop, Ga.—Knitting Mill.—Johns & Anthony are reported as to establish knitting mill.

Bowden, Ga.—Cotton-oil Mill.—Charter has been asked for Bowden Oil Mills. While awaiting organization J. L. Lovvorn is investigating material for buildings and power and machinery for press mills.

Carrollton, Ga.—Cotton Mill.—Mandeville Mills will build a No. 2 plant, equipment to be 10,000 spindles and complement, for manufacturing yarns.

Decatur, Ga.—Knitting Mill.—G. L. Suggs contemplates building a knitting mill.

Douglasville, Ga.—Paving.—Sealed bids will be received by L. Z. Dorsett, Mayor, until May 6 for street improvements.*

Elberton, Ga.—Paving.—City has voted affirmatively the issuance of \$30,000 of bonds for continuing the paving of streets. Bids will be asked. Address W. F. Jones, clerk and Treasurer. (Referred to March 14.)

Ellijay, Ga.—Marble Quarry.—Leonard Harrison, Wellsboro, Pa., and associates have purchased for development a tract of marble in Gilmer county.

Iron City, Ga.—Turpentine Plant.—Spring Creek Turpentine Co. incorporated with \$16,000 capital stock and privilege of increasing to \$25,000 to manufacture turpentine and naval stores by H. M. Graham.

Maxeys, Ga.—Cotton Mill.—It is proposed to organize company to build cotton mill, and Guy R. Brightwell can give information.

Pine Mountain, Ga.—Granite Quarry.—Pine Mountain Granite Co. incorporated with \$10,000 capital stock and privilege of increasing to \$100,000 by Austell Thornton, Atlanta, Ga., and F. T. Mason and James Kelly of De Kalb county. It proposes to quarry granite, marble, slate and other minerals.

Thomasville, Ga.—Sawmill.—J. L. Phillips & Co., lately reported as having expended \$127,000 in purchase of 20,000 acres of timber in Thomas county, will erect sawmill with capacity for cutting 50,000 feet lumber per day; president, J. L. Phillips. (Mentioned April 25 under Metcalf, Ga.)

Toccoa, Ga.—Furniture Factory.—Toccoa Furniture Co. incorporated with \$30,000 capital stock and privilege of increasing to \$100,000 by W. C. Edwards, E. L. Prather, S. D. Patrick and others. This company was mentioned March 21 as being organized by W. C. Edwards to erect two buildings, each two stories high, 75x150 feet, to be equipped as furniture factory.

Valdosta, Ga.—Cotton Mill.—Reported that Chicago capitalists have purchased (from E. B. Evell and Robert Adams of Eatonton and Geo. W. Atwood of Darien, Ga.) lands and riparian rights on the Oconee river, intending to develop the power and build cotton mill.

Vienna, Ga.—Electric Lights and Sewerage. City will expend \$15,000 in installing electric light and sewerage system. Bonds were voted April 8; B. F. Forbes, Mayor. (Mentioned recently.)*

Winder, Ga.—Cotton Mill.—Reported that Winder Cotton Mills will add 3000 spindles; present equipment, 6012 spindles and 350 looms.

KENTUCKY.

Ashland, Ky.—Tannery.—Ashland Leather Co. will erect two buildings, for which J. R. Gleske, Ceredo, W. Va., is preparing plans. Beamhouse will be 70x210 feet, one and two stories; roller-house 45x150 feet, three stories. The following materials will be used in both buildings: Brick, stone, concrete, composition roofing, electric wiring and steam heating; plumbing and woodwork in beamhouse.

Earlington, Ky.—Coal Mines.—Rose Creek Coal Co. is reported to erect new tiple and shaking screen at coal mines. J. H. West is president and W. D. Coyle general manager.

Greensburg, Ky.—Stave Plant.—Barden Stave Co. incorporated with \$10,000 capital stock by L. P. Barden of Greensburg and S. O. and Lettie M. Tate of Somerset, Ky.

Lexington, Ky.—Oil and Gas Wells.—New Domain Oil & Gas Co. has increased capital stock from \$500,000 to \$1,000,000; John D. Archbold, president; offices in the Security Trust & Safety Vault Co.'s Building.

Louisville, Ky.—Coal Elevator.—Byrne & Speed Coal Co. will erect coal elevator; 20x80 feet, 31 feet high; cost \$4250.

Louisville, Ky.—Woodworking Plant.—Louisville Wood Manufacturing Co. incorporated with \$5000 capital stock by R. E. O'Connor, W. M. Mitchell and Joseph O'Donnell.

Louisville, Ky.—Hardware.—Bomar-Summers Hardware Co. incorporated with \$30,000 capital stock by H. V. Bomar, C. M. Summers and George A. Metz.

Marion, Ky.—Coal Mines.—R. L. Coffy and J. J. Coffy, both of Pennsylvania, have purchased a controlling interest in the Crittenden Coal & Coke Co. and will further de-

velop the mines. General office has been removed from Marion to Sturgis, Ky.

Marksbury, Ky.—Barytes Mines.—Jones & Miller, representing the Clinch Valley Barytes Co., Honaker, Va., have leased mineral privileges in Garrard county, Kentucky, and are said to have already shipped 30 carloads of barytes to the Virginia plant, where it will be prepared for market.

Mayfield, Ky.—Lumber.—Mayfield Lumber Co. incorporated with \$30,000 capital stock by S. R. Douthitt, A. L. Brand, O. S. Wagner and W. A. Usher.

Nelson, Ky.—Coal Mines.—Nelson Creek Coal Co. incorporated with \$100,000 capital stock by J. C. Brown and W. A. Wickliffe of Muhlenberg county and John W. Price, Louisville, Ky.

New Castle, Ky.—Farm-gate Manufacturing.—Perfection Gate Co. incorporated with \$25,000 capital stock by J. P. Gray, S. M. Tudor, M. A. Young and others.

Nicholasville, Ky.—Hardware.—Hunter-Collins Hardware Co. incorporated with \$10,000 capital stock by G. L. Collins and R. M. and James Hunter.

Pike County, Ky.—Coal Mines.—Rumored that the Big Branch Coal Co. is being organized with \$80,000 capital stock by Messrs. Beury and Crouch, Charleston, W. Va.

Nicholasville, Ky.—Lumber.—Nicholasville Lumber Co. incorporated with \$15,000 capital stock by L. M. and O. T. Soper, L. B. Gregg and C. W. Sanders.

Paducah, Ky.—Transportation.—Paducah & Lillinois Ferry Co. incorporated with \$25,000 capital stock by Robert Owen, James Owen and Brack Owen.

Paducah, Ky.—Street Improvements.—City will undertake extensive street improvements, expending about \$12,755. Address The Mayor.

Zion, Ky.—Oil and Gas Wells.—Reported that J. S. Griffin, Nokomis, Ill., has purchased oil and gas rights under several hundred acres of land near Zion and will soon begin development work.

LOUISIANA.

Alexandria, La.—Sewerage.—Bids will be received by Mayor and Board of Aldermen until June 4 for furnishing approximately six miles of sewer pipe in sizes of eight-inch, 10-inch and 12-inch and for the laying of same and construction of accessories. Ira W. Sylvester is City Engineer.*

Avart (not a postoffice), La.—Lumber.—Evert Lumber Co. Ltd., incorporated with \$75,000 capital stock to continue established plant. James H. Simpson, Detroit, Mich., president; W. E. Hooper, Chicago, Ill., vice-president, and Ira T. Sayre, Flushing, Mich., secretary-treasurer.

Bogalusa, La.—Water-works and Fire Protection.—Great Southern Lumber Co., C. W. Goodyear, Buffalo, N. Y., vice-president, has decided upon plans for water-works and fire protection. It will build reinforced concrete reservoir 87x190 feet under ground, to have capacity of about 1,000,000 gallons, water to be supplied by six artesian wells on the townsite, which have an average flow of 300 gallons per minute. Fire protection will be afforded by steel standpipe containing 100,000 gallons. (Referred to April 18.)

Cravens, La.—Lumber Mill.—Gulf Lumber Co., capitalized at \$3,000,000, is proceeding with preliminary work for installation of lumber plant and establishment of town. Site has been surveyed, streets are being constructed and contracts practically awarded for 300 dwellings, store, hotel, office buildings, etc. It is also proposed to install sewerage system. Contracts will soon be awarded for machinery and supplies required for equipping plant. Sawmill will consist of four bands, gang and band resaw, with capacity of 300,000 feet in 10 hours; planing mill, drykiln, etc. About 2,000,000,000 feet of timber is available. Power plant will also be built. Logging road of company, known as the Gulf & Sabine River Railway, will be used for serving plant with saw material, and will add to shipping facilities when demanded; S. H. Fullerton, St. Louis, Mo., president; O. H. Ingram, Eau Claire, Wis.; M. L. Fleishel, St. Louis, Mo., and V. M. Davis, Ansley, La., vice-presidents; Paul D. Rust, secretary, and Frank Goepel, St. Louis, Mo., treasurer; main office in St. Louis, Mo. (Referred to April 11.)

Crowley, La.—Bridge.—Acadia and Vermilion parishes jointly will build bridge costing \$5000 across Bayou Queue de Tortue, connecting the two parishes. Address Police Jury.

Lake Arthur, La.—Sawmill.—Bonner Bros. & Ferguson are reported as having completed arrangements for erection of sawmill. Railroad will probably be extended to proposed plant.

Louisiana, La.—Timber Development.—R. M. Smith & Co., Parkersburg, W. Va., have purchased at \$350,000 about 20,000 acres of hardwood timber land in Louisiana estimated to cut about 100,000,000 feet of lumber. It is proposed to establish sawmills, clearing about 1000 acres per year.

Monroe, La.—Sawmill.—Dent Lumber Co., reported incorporated April 4 with \$50,000 capital stock, will operate a circular mill with daily capacity of 30,000 feet. It is proposed to purchase additional timber lands; R. T. Fant, Bankers' Trust Co., Memphis, Tenn., president; Jett Dent, general manager, and W. H. Withers, secretary-treasurer; offices in Memphis, Tenn.

New Iberia, La.—Woodworking Plant.—Seppen Hale will establish plant for manufacturing boxes and handles for tools.

New Orleans, La.—Saw and Planing Mills. Evans Manufacturing Co. incorporated with \$50,000 capital stock to operate saw and planing mills for manufacturing lumber, shingles, boxes, excelsior and other wood products; A. T. Stevenson, president; J. Han Meyers, vice-president; Elissa Evans, secretary, and F. H. Spang, treasurer.

New Orleans, La.—Mechanical and Electrical Engineering.—C. P. Young Engineering & Supply Co., recently reported incorporated, has a capital stock of \$100,000 and will engage in general mechanical and electrical engineering, furnishing machinery and mill supplies, etc. C. P. Young is president and treasurer, George S. Dadds vice-president and R. Vandervort secretary; offices at 405 Camp street.

New Orleans, La.—Street Paving.—J. A. Craven & Co. and E. A. Grasser & Co. have submitted bids for paving portion of Common and Gravier streets with square granite blocks. Both bids have been referred to the proper authorities for consideration. Address The Mayor.

New Orleans, La.—Transportation.—C. W. Drown, Captain Boatsman and associates are organizing company with \$75,000 capital stock to operate a line of steamboats on the Red river between New Orleans and Shreveport.

Ruston, La.—Cotton Compress and Warehouse.—Herman Loeb, Shreveport, La., will erect cotton compress and brick warehouse for storing cotton.

MARYLAND.

Baltimore, Md.—Pier.—The Baltimore & Ohio Co.'s freight pier, which was being constructed at Locust Point at cost of \$750,000, collapsed and pier was damaged to extent of about \$350,000. Its reconstruction will be started at once. McLean Contracting Co., 902 Maryland Trust Building, were the contractors for the pier. D. D. Carothers is chief engineer of the railroad company.

Baltimore, Md.—Sewerage System.—Board of Awards, City Hall, awarded following contracts in connection with construction of sanitary sewerage system: West low-level interceptor sewer, Metropolitan Contracting Co., 95 Milk street, Boston, Mass.; section 1, 306 feet 84-inch, 720 feet 80-inch and 645 feet 76-inch circular concrete sewer, at \$158,445.65, in 500 days; section 2, 1940 feet 74-inch circular concrete sewer, at \$149,477, in 600 days. Main outfall sewer (11x12.3 feet concrete sewer), Connelly Construction Co., 1038 Schofield Building, Cleveland, Ohio; section 3, 2381 feet, at \$130,054, in 400 days; section 7, 2552 feet, at \$120,058.00, in 375 days, and section 8, 2900 feet, at \$107,094.50, in 375 days; A. F. Helm, 1384 Addison road N. E., Cleveland, Ohio, section 9, 2672 feet, at \$31,230.43, in 180 days; J. Erwin Hillpot, 307 Lippincott Building, Philadelphia, Pa., section 10, 4778 feet, at \$87,054.27, in 210 days. Clearing and grading site of Back river disposal works to J. Erwin Hillpot, 307 Lippincott Building, Philadelphia, Pa., at \$127,566.50, in 300 days, this work including 120 acres of land to be cleared, 428,825 cubic yards of excavation, 331,150 cubic yards of rolled embankment and 3500 linear feet of vitrified underdrain. All work to be done under supervision of Sewerage Commission, Calvin W. Hendrick, chief engineer, 904 American Building. High-level interceptor sewers (8.4 feet in diameter concrete sewer), section 1, 2535 feet, and section 2, 2665 feet, and main-outfall sewer, section 4, 2947 feet, and section 5, 2975 feet, were rejected owing to excessive bids, and new bids will be taken on this work immediately.

Baltimore, Md.—Coal Mining.—The Crane Company has been incorporated with capital stock of \$25,000 to mine anthracite coal by W. H. Crane, 815 American Building, Baltimore and South streets, and Burton G. Buck and Kirkland C. Buck, Maryland Life Building, 8 and 10 South street.

Baltimore, Md.—Slate Company.—United Peach Bottom Slate Co. has been incorporated with a capital stock of \$25,000 to deal in slate, tile, brick, etc., by Matthew J.

Dunn, 942 Ensor street; Harry E. Carr, 610 Law Building, 225 Courtland street, Baltimore, Md., and Harry Proctor, Delta, Pa.

Baltimore, Md.—Bottling Works.—C. E. May, proprietor of Crown Bottling Works, 703 South Durham street, has awarded contract to Joseph Schamberger, 2122 East Baltimore street, for the construction of three-story brick bottling plant at 702-706 South Wolfe street to cost \$8000.

Baltimore, Md.—Oyster and Fruit Packing Plant.—H. J. McGrath Company, Atlantic Wharf, foot of Lakewood avenue, has been incorporated with capital stock of \$100,000 to can fruits, vegetables, oysters, etc., by H. J. McGrath, Benjamin Hamburger and Charles Van Lee.

Baltimore, Md.—Coal-handling Plant.—Henry Bower Chemical Manufacturing Co., 1348 Block street, contemplates installing coal pocket and coal-handling equipment; capacity to be 200 tons daily from scows to pocket. No contracts have been awarded and correspondence is invited.*

Conowingo, Md.—Water-power Electrical Plant.—Susquehanna River Power Co. has called a meeting of stockholders for May 21 to increase capital stock from \$3,500,000 to \$5,000,000. This action will be followed, it is understood, by the beginning of construction on the company's proposed water-power developments and the erection of an electric plant for transmitting the electricity. The project has been previously referred to at length by the Manufacturers' Record. It comprises plan for developing from 50,000 to 70,000 horse-power by building a dam across the Susquehanna river. B. Harvey Welsh is president, 1110 Betz Building, Broad street near Chestnut street, Philadelphia, Pa.; James H. Harlow of Darlington, Md., chief engineer.

Cumberland, Md.—Water-works.—City will vote May 20 on the issuance of \$50,000 of bonds for purchasing new engine and pumps at municipal water-works and improving and extending the system. (Board of Water Commissioners was reported April 11 as having recommended the purchase of pumping engine of the horizontal compound high-duty crank and flywheel type, with daily capacity of 8,000,000 gallons.) Clarence M. King is Mayor.

MISSISSIPPI.

Columbus, Miss.—Acid Plant and Farm.—Refuge Cotton Oil Co. (main office in Vicksburg, Miss.) is reported as contemplating the establishment of acid plant and experimental farm; E. M. Durham, president, and P. R. Lamar, chief engineer, both of Vicksburg.

Corinth, Miss.—Sawmill.—North Mississippi Lumber Co. contemplates establishing plant to consist of sawmill with daily capacity of 20 carloads of logs, battery of drying kilns and planing mill. It has invested \$1,500,000 in timber lands along the new line of the Illinois Central Railroad. Letters addressed to the company care of the Corinth Business League will probably be delivered.

Greenville, Miss.—Cotton Harvester.—Herman Cohn, S. P. Goldfarb, George H. Zempeter and others are the incorporators of the Mississippi Cotton Harvester Co., reported incorporated April 11, with \$350,000 capital stock, to manufacture a pneumatic cotton harvester.

Gulfport, Miss.—Street Paving.—City is considering the paving of streets at a cost of \$150,000. Bids for bond issue will probably soon be advertised. Address The Mayor.

Gulfport, Miss.—Lumber Plant.—Ingram-Day Lumber Co. will make extensive improvements to the plant of the Gulf Coast Lumber Co., recently purchased. It is proposed to erect sawmill, 72x238 feet, with an addition 64x100 feet, equipped with three band saws, two resaws and Corliss engine to operate machinery and generate electricity for lighting plant and town. Lath and shingle mill will also be added and the capacity of the new plant will be 150,000 feet daily. Company now owns 15 miles of logging road, which will be extended during the summer.

Bay Springs, Miss.—Woodworking Plant.—Bay Springs Spoke & Manufacturing Co., lately reported incorporated, will erect 40x60-foot building at cost of \$3000; will manufacture spokes, ceiling, flooring, spindles, handles, etc. Officers are: L. L. Denison, president; O. S. McPherson, secretary and treasurer; A. L. Parker, general manager.*

Fort Bayou, Miss.—Box Factory.—Reported that K. Champlain, probably of Ocean Springs, Miss., has purchased site on which to erect box factory.

Liberty, Miss.—Public Improvements.—City will vote on the issuance of \$10,000 of bonds for public improvements. Address The Mayor.

Magnolia, Miss.—Cotton Mill.—Magnolia Cotton Mills is reported as having awarded

contract for 2000 spindles, additional to present plant of 10,000 spindles and 264 looms.

Magnolia, Miss.—Machinery.—Lampton Machinery Co. incorporated with \$5000 capital stock, to act as agent for all kinds of machinery, by W. M. Lampton, L. L. Lampton, I. W. Lampton, T. B. Lampton and E. W. Reid.

Magnolia, Miss.—Water-works.—City has sold \$40,000 of bonds for construction of water-works and work will be begun at once. Xavier A. Kramer, Magnolia, Miss., is consulting engineer. (Vote for bond issue mentioned January 24.)

McComb, Miss.—Bottling Works.—McComb Coca-Cola Bottling Co. incorporated with \$5000 capital stock by P. L. Borden, W. A. Harris and A. B. Freeman.

Meridian, Miss.—Telephone System.—Mississippi Independent Telephone Co. incorporated with \$50,000 capital stock by S. A. Jones, W. N. Ethridge, C. B. Luck and others.

Meridian, Miss.—Churn Manufacturing.—American Churn Manufacturing Co., lately reported incorporated, has elected: President, A. Poltevent; vice-president and secretary, C. F. Wood; treasurer, J. O. Wise; superintendent, W. L. Winders; assistant superintendent, M. C. Winders. Company expects to erect building in the near future.

Natchez, Miss.—Steam Bakery.—Natchez Bakery Co. incorporated with \$10,000 capital stock by Leo and Reuben S. Simon and H. E. Baxter.

Silver Creek, Miss.—Cotton Gln.—Silver Creek Gln Co. incorporated with \$5000 capital stock by W. J. Bass, D. C. Griffith and others.

MISSOURI.

Boonville, Mo.—Ice Plant and Laundry.—Boonville Ice & Laundry Co., lately incorporated, will erect brick building 100x200 feet; cost \$30,000; will operate steam laundry and manufacture ice, also deal in natural ice; capacity of ice plant 25 tons daily; engineer in charge, Oscar Ripley; architect, H. L. Nichols, Marshall, Mo.; president, A. A. Wallace; secretary and treasurer, W. L. Duck.

Butler, Mo.—Telephone System.—Mount Pleasant Mutual Telephone Co. incorporated by T. N. Ervon, E. D. Wilcox, Fred Church and others.

Cape Girardeau, Mo.—Cooperage.—Luxora Cooperage Co. incorporated with \$40,000 capital stock by Charles Wunderlich, George McBride, Paul T. Bolz and others.

Caruthersville, Mo.—Lumber.—Southern Lumber Co. incorporated with \$40,000 capital stock by R. Lee Wilson, W. A. Ward, Sid Henry and others.

Clinton, Mo.—Milling.—J. H. Kracke Milling Co. incorporated with \$10,000 capital stock by J. H. Kracke, Charles Wunderlich and L. E. Keyes.

Joplin, Mo.—Mining.—Politicians' Mining Co. incorporated with \$15,000 capital stock by George W. Moore, George Donnellan, W. E. Beatty and others.

Joplin, Mo.—Lead and Zinc Mines.—Chelsea Lead & Zinc Co. incorporated with \$40,000 capital stock by J. H. Elkin, Eugene Simon, Henry Cohn and others.

Joplin, Mo.—Lead Mines.—Lead Development Co. incorporated with \$40,000 capital stock by Frank Nicholson, James W. Trick and Paul Zgintzki.

Kansas City, Mo.—Brick Plant.—Kaempff Shale Brick Co., reported incorporated April 4 with \$30,000 capital stock by W. A. Hammond, Frederick C. Kaempff and others, has purchased the Stukenberg Pressed Brick Co. and will operate the plant until a new one is built, which will have a daily capacity of 100,000 bricks.

Kansas City, Mo.—Iron Works.—Witte Iron Works Co., whose contract for new plant was recently mentioned, will erect building at cost of \$60,000 and install \$100,000 equipment. Capacity of plant will be 3000 gas engines per year. Brick, stone and steel for machine shops and gas engines will be used in construction; president, Ed H. Witte; architects, Sheppard & Farrar.*

Kansas City, Mo.—Manufacturing.—Sorenson Manufacturing Co. incorporated with \$5000 capital stock by Otto Sorenson, John A. Sorenson and Frank Sorenson.

Kansas City, Mo.—Woodworking Plant.—Kansas City Willowwork & Molding Co. incorporated with \$10,000 capital stock by L. N. Davis, A. J. Davis, C. A. Welsh and others.

Kansas City, Mo.—Refinery.—Paola Refining Co. incorporated with \$350,000 capital stock by Edward G. Leszinsky, W. E. Kirkpatrick, Frank C. Harvey and others.

Kansas City, Mo.—Distillery.—Victor Fletcher, Mihalovitch-Fletcher Distillery Co., Cincinnati, Ohio, is organizing company to build distillery, investing about \$1,000,000.

The plant will have a daily capacity of 10,000 bushels of corn, producing about 50,000 gallons of spirits.

Malden, Mo.—Bottling Works.—Malden Bottling Co. incorporated by Ira M. Morris, W. J. Davis, William Rose and others.

Osceola, Mo.—Dam Construction.—It is proposed to build dam across the Osage river to develop water-power for industrial purposes, making the river navigable at all seasons as far as Taberville; cost \$25,000. City will probably vote on the issuance of \$9500 of bonds to aid in the construction. Monegaw Springs Co. is interested.

Savannah, Mo.—Waterworks.—City has voted affirmatively the issuance of \$35,000 of bonds for construction of water-works. Address The Mayor.

Sedalia, Mo.—Shoe Factory.—Courtney Shoe Co., St. Louis, Mo., contemplates erecting three-story brick building to be equipped as branch shoe factory.

St. Joseph, Mo.—Cement Plant.—Missouri Portland Cement Co. has been incorporated and will establish Portland-cement plant with productive capacity of 800 barrels per day. Freeborn Engineering & Construction Co., Kansas City, Mo., is engineer in charge; T. J. Benkendorf, president; H. W. McNutt, secretary and treasurer; capital stock \$1,250,000; address, 112 Edmond street. (Lately mentioned under Oklahoma City, O. T.)

St. Joseph, Mo.—Foundry and Machine Works.—Phoenix Foundry & Machine Co. incorporated with \$35,000 capital stock by William Blum, Robert Blum, Henry Blum and others.

St. Louis, Mo.—Hardware.—Koch-Sittner-Ludinger Hardware Co. incorporated with \$10,000 capital stock by Frederick A. Koch, Henry W. Sittner, Anthony Eufinger and others.

St. Louis, Mo.—Pottery, Coal Mines, etc.—Ouachita Pottery Co., general office, 606 Century Building, intends to make considerable improvements during the year. It has had a temporary test pottery plant at Hot Springs, Ark., and is now beginning to install a permanent plant for manufacturing high-class art ware, interior decorations and other ceramic work. Later the company will erect near Hot Springs a plant for manufacturing high-grade press and glazed brick, roof and ornamental tile. In Morgan county, Missouri, six miles from Versailles, Mo., the company owns 172 acres of clay, shale and coal lands, which are to be developed, and it expects to build a brick plant for 300,000 capacity daily, besides fire-clay products generally. Bituminous and cannel coal is found in the Morgan county land, and that will be developed. The Ouachita Pottery Co. is capitalized at \$3,000,000. R. E. Bradford is president and general manager. H. F. Redding is general superintendent of the clay and coal mines at Versailles.

St. Louis, Mo.—Woodworking Plant.—Henry Quellmalz Lumber & Manufacturing Co. incorporated with \$100,000 capital stock by Henry Quellmalz, Arthur Quellmalz and Henry A. Quellmalz to manufacture wagons, woodwork, etc.

St. Louis, Mo.—Iron Works.—Missouri Iron Co. incorporated with \$5000 capital stock by Edward F. Goltra, Jesse D. Dana, Pierre C. Maffitt and Thomas S. Maffitt.

St. Louis, Mo.—Hose and Pipe Coupling.—American Coupling Co. incorporated with \$800,000 capital stock by Frank Coatsworth, S. M. Locke and Cassius M. Clay, all of Mexico, Mo.

St. Louis, Mo.—Lumber.—Mississippi-Louisiana Lumber Co. incorporated with \$25,000 capital stock by B. L. Van Cleave, J. C. Graham, S. W. Morten, George C. Goss and others.

St. Louis, Mo.—Construction.—Vulcan Construction Co. incorporated by William Buck, Grant Wyatt and John F. McDermott.

Versailles, Mo.—Brick Plant and Coal Mines.—Ouchita Pottery Co., developing clay and coal mines, expects to build plant for daily output of 300,000 bricks, fire-clay products, etc.; offices at 606 Century Building, St. Louis, Mo. (See mention of company under St. Louis.)

Webb City, Mo.—Street Improvements.—Sealed proposals will be received by W. E. Smith, City Engineer, until May 30 for street improvements, estimated to cost \$21,544.*

NORTH CAROLINA.

Ashboro, N. C.—Reduction Works.—Milton I. Beard, Pittsburg, Pa., will build mineral-ore reduction works (on the property of Ashboro Copper Mining Co.), investing about \$10,000. An electrical process for reducing the ores will be installed. The Ashboro Copper Mining Co. will resume mining and bank its ores for treatment when the new plant is completed. This company has recently purchased additional land, providing for siding from railroad to reduction works and mines.

Asheville, N. C.—Lumber.—English Lumber Co. incorporated with \$150,000 capital stock by James M. English, Isaac M. English and others.

Azalea, N. C.—Planing Mill.—McEwen Lumber Co., recently mentioned as about to install planing mill, should be addressed at Asheville, N. C.; A. H. Cobb, secretary.

Aulander, N. C.—Woodworking Plant.—W. M. Nichols will install planing mill and general woodworking plant.*

Charlotte, N. C.—Land Improvement.—F. D. Alexander Land Co. incorporated with \$100,000 capital stock by Vinton Liddell, F. D. Alexander and W. R. Robertson.

Charlotte, N. C.—Brick Works.—Unit Brick & Tile Co. incorporated with \$50,000 capital stock by J. Haas, Paul Chatham, F. McM. Sawyer and L. B. Johnson. It proposes to erect plant to manufacture Unit concrete brick and roofing tiles under the Sawyer patent.

Charlotte, N. C.—Cotton Mill.—Elizabeth Mills' stockholders will be asked to decide as to the proposed doubling of the company's 6000-spindle cotton mill. (Lately mentioned.)

Charlotte, N. C.—Bag Manufacturing.—Charlotte Bag Co., lately reported incorporated, has installed equipment at cost of \$2000 for production of cotton and burlap bags of all kinds, with capacity of from 10,000 to 15,000 daily. Managers, J. N. Lay and C. R. Riddle.*

Cherryville, N. C.—Cotton Mill.—Melville Manufacturing Co., reported organized, etc., during 1906, has erected one-story 75x250-foot building and is installing 5000 spindles for manufacturing yarns. All machinery has been purchased; Stuart W. Cramer, Charlotte, N. C., engineer-architect in charge; D. A. Rudisill, agent of company.

Concord, N. C.—Cotton Mill.—Brown Manufacturing Co. has let contract to R. A. Brown for erection of two-story 162x125-foot addition and will install 10,000 spindles, 400 looms and finishing plant. Contracts for the machinery have been awarded.

Durham, N. C.—Lumber.—New Hope Lumber Co. incorporated with \$50,000 capital stock by C. B. Loveless, D. Helman and I. C. Loveless.

Elizabeth City, N. C.—Sawmills.—Dare Lumber Co., New York, N. Y., owning about 16,000 acres of timber land in Dare county, will erect sawmills having daily capacity of 150,000 feet of lumber.

Gold Hill, N. C.—Mining.—Yadkin Mining & Manufacturing Co. incorporated with \$1,000,000 capital stock by J. J. Ducker, Mrs. Emma L. Ducker, C. M. Birdsell and Henry M. Simperich to mine gold, silver and copper.

Hendersonville, N. C.—Cotton Mill.—Green River Manufacturing Co., reported incorporated last week with capital stock of \$251,000, is reported as having decided to erect main building two stories high, 100x1000 feet; number of spindles not stated as yet; S. B. Tanner and J. O. Bell of Henrietta, N. C., principal incorporators.

Hot Springs, N. C.—Cannery and Furniture Factory.—It is proposed to establish a cannery and a furniture factory. Benj. Sams can give information.

Kings Mountain, N. C.—Cotton Mill.—Klotho Mills, recently incorporated, takes over the Enterprise Mills of 5376 spindles and 170 looms; new company will replace some old machinery with new equipment and overhaul entire plant. It has awarded all contracts.

Leaksville, N. C.—Lumber Manufacturing.—Leaksville Furniture Lumber Manufacturing Co. incorporated with \$50,000 capital stock by J. M. Hopper and others.

Lenoir, N. C.—Land Improvement.—Lenoir Land Co. incorporated with \$25,000 capital stock by W. R. Stine, R. L. Steele, C. B. McNairy and others.

Manchester, N. C.—Cotton Mill.—Incorporated: McNeill Manufacturing Co. with capital stock of \$200,000 by W. D. McNeill of Raeford, N. C.; W. E. Kindley and C. L. Pemberton of Fayetteville, N. C. Messrs. McNeill and Kindley were reported in March as proposing to develop water-power and build cotton mill.

Newton, N. C.—Paper-box Plant.—Newton Paper Box Co. incorporated with \$25,000 capital stock by D. J. Carpenter, P. O. Carpenter and R. E. Clapp.

Ramseur, N. C.—Lumber.—Riverside Lumber Co. incorporated with \$30,000 capital stock by E. C. Watkins, N. F. Marsh and others.

Rockingham, N. C.—Road Improvements.—Richmond county has voted affirmatively the issuance of bonds for road improvements. Address County Commissioners.

Rockwell, N. C.—Cotton Mill.—Paul Barringer of Mt. Pleasant, N. C., has not completed any plans for organizing his proposed cotton-mill company. He will probably not be prepared to state particulars for several months. (Lately mentioned.)

Rose Hill, N. C.—Lumber and Veneer Plant.—The Dixie Company, lately reported incorporated, will establish plant for the production of rough and dressed lumber and veneer. (Recently incorrectly mentioned as Dixon Lumber & Veneer Co.)*

Troy, N. C.—Bridge.—Board of Commissioners, Montgomery county, will receive bids until May 6 (not May 7, as recently reported) for construction of bridge across Little river at Tony's Ford; bridge is to be of steel; cost not over \$5000. O. B. Deaton, clerk Board of Commissioners.

Vanceboro, N. C.—Land Improvement.—Vanceboro Real Estate & Development Co. incorporated with \$25,000 capital stock by L. J. Moore, J. W. Stewart, W. C. White and others.

Wadesboro, N. C.—Woodwork and Creosote Plant.—Wadesboro Electrical Manufacturing Co. has been organized for the manufacturing of telephone and electric wire insulator pins, crossarms, etc.; company also contemplates installing plant for creosoting insulator pins, crossarms, etc. Address John W. G. Guldedge.*

Washington, N. C.—Transportation.—North Carolina & Virginia Steamboat Co. incorporated with \$125,000 capital stock by A. W. Stryon, George Dillick, Joseph F. Taylor and others.

Wilson, N. C.—Light Plant.—Dixie Light Co. incorporated with \$25,000 capital stock by J. R. Hardie and others.

Wilson, N. C.—Road Improvements.—Wilson county has voted affirmatively the issuance of \$100,000 of bonds for road improvements; referred to March 28. Address County Commissioners.

SOUTH CAROLINA.

Filbert, S. C.—Water Elevators.—J. B. Neil has patented and will arrange for the manufacture of a water elevator.

Hartsville, S. C.—Water-works, Sewerage and Surface Drainage.—Date for awarding contracts for water-works, sewerage and surface drainage has been postponed until May 15. (Mentioned March 23.) Charles C. Wilson, 1302 Main street, Columbia, S. C., engineer and architect.*

Lancaster, S. C.—Cotton-oil Mill.—Lancaster Cotton Oil Co., recently reported as applying for charter, has about decided that its plant will have a three-press equipment and capital stock is to be \$60,000. It has not decided whether to use a Corliss or gas-producer engine as yet, and invites correspondence on this subject.*

Lancaster, S. C.—Electric Light Plant.—John T. Stevens, J. H. Witherspoon and M. S. Witherspoon have applied for franchise to install electric-light plant.

Laurens, S. C.—Water-power-Electrical Plant.—Reedy River Power Co.'s contract for construction of dam has been awarded to C. R. Willard & Son of Spartanburg, S. C., as reported recently, but details were partly incorrect. Dam will be about 450 feet long and about 38 feet high. Power developed will be transmitted to Laurens for lighting and power purposes, and an electric plant will, of course, be erected. Messrs. Willard & Son will purchase considerable equipment for contractors' uses. J. E. Sirrine of Greenville, S. C., is the engineer in charge.*

Spartanburg, S. C.—Water-works.—City has completed purchase of water plant from Home Water Supply Co., John B. Cleveland, president, and will expend \$75,000 in improvements, to consist of the installation of additional pumping engine, the laying of new and larger mains and 30-inch pipe from pumping station to standpipe, etc.; purchase price is said to be \$300,000. J. F. Fied, Mayor; Floyd L. Liles, chairman of Water Committee.

Winnboro, S. C.—Water-works and Sewerage.—City is considering the installation of water-works and sewerage and will soon advertise for engineer to make surveys. Address The Mayor.

TENNESSEE.

Bristol, Tenn.—Extract Plant.—Holston Extract Co. has increased capital stock from \$75,000 to \$150,000. (Plant controlled by Chas. A. Schieren & Co. of New York.)

Bristol, Tenn.—Cannery.—A. L. Womack & Co. will establish cannery; brick building, 35x100 feet, is being erected at cost of \$3500 to \$4000; will can tomatoes and also engage in preserving and making of catsup.*

Chattanooga, Tenn.—Cooperage.—Chattanooga Stave & Cooperage Co. incorporated with \$10,000 capital stock to manufacture staves, headings, hoops, etc., by V. J. Blow, H. F. Smith, S. G. Holland and others.

Clinton, Tenn.—Timber Development.—T. S. Hassel has purchased at \$120,000 about 18,000 acres of land in Wayne county, estimated to cut about 51,000,000 feet of board-measure lumber, besides large quantities of cross-ties, hickory and stave timber; portion of the property is underlaid with mineral deposits, and it is probable that these will be developed. It is stated that Mr. Hassel has sold the white oak to the Cincinnati Cooperage Co. at \$65,000, will dispose of hickory rights to mill men and possibly cut the cross-ties himself.

Clinton, Tenn.—Knitting Mill.—Magnet Knitting Mills has contracted for 20 additional knitting machines. (Recently mentioned.)

Cookeville, Tenn.—Fertilizer Plant.—Putnam Fertilizer Co. will establish plant for the production of commercial fertilizers; will erect a 20x60-foot addition to present building for installing mixing plant; capacity 1000 tons per year; president, F. H. White; general manager, C. H. Whitney.*

Crossville, Tenn.—Woodworking Plant.—Reported that E. S. Cram & Co. have purchased several thousand acres of timber land and will establish plant to manufacture all kinds of house trimmings, etc., investing about \$50,000.

Dayton, Tenn.—Iron Furnace.—Dayton Coal & Iron Co.'s furnace No. 2, which has been in course of repairs, has been blown in and will have a capacity of 250 tons.

Huntingdon, Tenn.—Cannery.—Huntingdon Canning Co. incorporated with \$10,000 capital stock by A. M. Lee, Nellie Wright, W. L. Noell and others.

Jefferson City, Tenn.—Electric-light Plant.—Jefferson City Milling & Electric Co. incorporated with \$30,000 capital stock to furnish city with electric lights, etc., by W. T. Colle, T. H. Bales and others.

Gleason Station, Tenn.—Water Plant.—Gleason Water Co. incorporated by W. B. Bynum, R. N. Bandy, J. T. Parks and others.

Huntingdon, Tenn.—Cotton Gin.—Branches of the Farmers' Co-operative and Educational Union of America, J. E. Montgomery, Sate president, have incorporated the Farmers' Union Gin Co. with \$5000 capital stock to erect four-stand 70-saw cotton gin. (Referred to March 28.)

Jonesboro, Tenn.—Water-works.—City will vote on the issuance of \$10,000 of bonds for installing water-works. Address The Mayor.

Knoxville, Tenn.—Tannery.—Reported that E. J. Harth & Co., Cincinnati, Ohio, contemplate establishing branch plant, investing about \$30,000.

Lebanon, Tenn.—Light and Water Plant.—Farmers' Milling Co., composed of N. G. Robertson, S. R. Hawks and others, has made proposition to pay off the bonded indebtedness of city and furnish free lights and water. It proposes to install new electric plant of double present capacity and bore 20 wells for increasing water supply.

Memphis, Tenn.—Concrete-block Plant.—E. F. Stephenson is contemplating the establishment of plant for the manufacture of hollow concrete building blocks, cement brick and roofing tile.*

Memphis, Tenn.—Cottonseed-oil Mill.—R. N. Erion is preparing plans for proposed hullhouse for the Crescent Cotton Oil Co.

Memphis, Tenn.—Bottling Works.—Sar-Sa Bottling Co. incorporated with \$25,000 capital stock by Ed. A. Dalton, Eugene Burton, S. D. Ebersole and others.

Memphis, Tenn.—Lumber.—North Mississippi Lumber Co. incorporated with \$50,000 capital stock by J. H. Draughton, J. W. Draughton, E. B. Causey and others.

Mohawk, Tenn.—Sewer Pipe Manufacturing.—Mohawk Sewer Pipe Co. incorporated with \$12,000 capital stock by J. A. D. Haun, Mohawk; C. N. Weaver and S. E. N. Moore, Nashville, Tenn., and H. R. Brown, Greenville, Tenn.

Mt. Pleasant, Tenn.—Phosphate Mining.—Middle Tennessee Phosphate Co., reported incorporated April 25 with \$50,000 capital stock, is composed of John Garrett and W. B. Alexander, Mt. Pleasant; J. A. Cable, Union City, Tenn.; C. L. Dortch, Nashville, Tenn., and T. C. Meadows, Buffalo, N. Y. It has secured a lease to mine 100,000 tons of rock from the Kittrell farm, constructed spur track to the property and is making preparations for installation of rotary dryer; tram-car system will be used.

Nashville, Tenn.—Lumber.—Nelson Lumber Co. incorporated with \$50,000 capital stock by James A. Summers, Guy L. Smith, L. W. Missimer and others.

Nashville, Tenn.—Water-works Improvements.—The city contemplates employing engineers to make a comprehensive investigation for the purpose of reporting on the most feasible means for improving the present water-works system and providing for the future needs of the municipality. A recent act of Legislature authorized an issuance of \$2,500,000 of bonds for such improvement, but the calling of an election to vote on the issuance will probably be delayed for some time. An election to vote on issuing \$1,450,000 will probably be voted on in October, \$200,000 for buying and laying mains, \$400,000 for enlarging electric-light plant, \$50,000 for laying sidewalks, \$300,000 for erecting schools, etc. Address The Mayor.

Nashville, Tenn.—Timber Development.—Goldwell-Winkler-Gilliland Lumber & Land Co. has been organized with \$25,000 capital stock to develop yellow-leaf pine timber lands in the Carolinas. It proposes to purchase an additional tract; W. C. Coldwell, president; E. R. Winkler, secretary-treasurer, and A. J. Gilliland, general manager; offices in the First National Bank Building.

Sparta, Tenn.—Shingle Mill.—W. M. Lyles will erect shingle mill with capacity of 12,000 to 15,000 shingles daily.*

Trezevant, Tenn.—Water-works.—Company is being organized with \$2000 capital stock by R. T. Argo, R. E. Ware and others to construct water-works. About 7000 feet of piping will be required. (Referred to April 11.)

Westport, Tenn.—Sawmill, etc.—Joe H. McCall and Gray Sanders will establish sawmill, grist mill and probably a cotton gin.

TEXAS.

Arlington, Texas.—Lumber.—People's Lumber Co. incorporated with \$35,000 capital stock by A. W. Collins, C. E. Elliott and P. H. Harrison.

Bay City, Texas.—Manufacturing.—Universal Manufacturing Co. incorporated with \$10,000 capital stock by J. E. Large, M. W. Cave and John W. Gaines.

Beaumont, Texas.—Iron Works.—Beaumont Iron Works, Inc., will erect building 50x150 feet and equip for building and rebuilding cars. Officers are O. B. Greeves, president; W. B. Greeves, vice-president; C. A. Ganoung, secretary and treasurer.

Beaumont, Texas.—Land Improvement.—Southern Land & Improvement Co. incorporated with \$10,000 capital stock by F. A. Hull, Thomas Green and C. L. Boone.

Beaumont, Texas.—Rolling Mill.—W. Z. Burton, Fort Worth Iron & Steel Co., Fort Worth, Texas, contemplates establishing rolling mill.

Bowie, Texas.—Acetylene-gas Plant.—Bowie Acetylene Gas Co. incorporated with \$14,000 capital stock by George S. Lawrence, G. R. Yantis, J. M. Embury and J. B. Irons.

Brenham, Texas.—Refinery.—Brenham Compress, Oil & Manufacturing Co. has begun the erection of proposed refinery to have a capacity of 14,000 gallons in 48 hours. Building will be 31x52 feet and 35 feet high, constructed of brick on cement foundation. It is proposed to use fuller's earth in refining the product, and as this process requires a machine for screening, the latter equipment will be installed in the near future. The company is said to have for its final purpose the replacing of all wood and iron buildings now composing the oil mill and power plant with fireproof concrete and brick structures, the concrete blocks to be manufactured on the ground. Latter work will probably be undertaken during the summer.

Burlington, Texas.—Cotton Gin.—Barclay Gin & Cotton Co. incorporated with \$10,000 capital stock by W. A. Barclay, G. W. Barclay and J. W. Russell.

Chillicothe, Texas.—Telephone System.—Independent Telephone Co. incorporated by F. L. Moffett, W. O. Herring, J. C. Lane and others.

Denton, Texas.—Gas Works.—Denton Gas Co., lately reported incorporated, will erect building 60x80 feet; estimated product 60,000 feet gas per day; H. M. Griffin, president, Battle Creek, Mich.

Eagle Lake, Texas.—Rice Mill.—Lake Side Rice Mill Co. incorporated with \$75,000 capital stock by J. J. Whately, H. W. Raynor and L. V. Hahn.

Eagle Pass, Texas.—Coal Mines.—Lamar Coal Co., lately reported incorporated, has elected: President, L. M. Lamar; vice-president, J. W. Ritchie; secretary-treasurer, U. J. Backus. It will develop 7500 acres of coal lands about eight m. e. north of Eagle Pass. One mine is being constructed (the first of a series to extend across the property) which will have capacity of 500 tons per day; cost of plant, about \$25,000. Capital

stock of \$100,000 is paid up. (In recent mention capital stock was incorrectly stated to be \$10,000.) Principal office, near Eagle Pass.

Elgin, Texas.—Cottonseed-oil Mill.—Elgin Cotton Oil Mill Co. incorporated with \$40,000 capital stock; Chester Berg, president; W. H. Rivers, first vice-president; A. F. Anderson, second vice-president, and Carl Carlson, secretary.

Frisco, Texas.—Milling.—Frisco Milling Co. incorporated with \$40,000 capital stock by P. J. Pierce, D. C. Pierce and J. S. Patrick.

Giddings, Texas.—Cottonseed-oil Mill.—Giddings Industrial Corporation, the newly-organized oil mill company, has elected J. A. Fields president and Charles W. Fields secretary. (Referred to April 25.)

Gore, Texas.—Supplies.—Gore Supply Co. incorporated with \$30,000 capital stock by E. B. Wilson, A. E. Coffman, W. W. Coffman, J. E. Allen and others.

Hamlin, Texas.—Lumber.—Gray Lumber Co. has increased capital stock from \$40,000 to \$75,000.

Haskell, Texas.—Brick Plant.—Haskell Brick Co. incorporated with \$5000 capital stock by M. A. Clifton, J. N. McFatter, G. R. Couch and others.

Houston, Texas.—Lumber.—Hardin Lumber Co. incorporated with \$30,000 capital stock by J. C. Hutcheson, R. Rogers and B. R. Hardin.

Houston, Texas.—Rice Elevators and Warehouses.—C. W. Hoyt of Kansas City, Mo., representing capitalists of that city and Chicago, is conferring with the Texas Rice Farmers' Association relative to the erection of a chain of rice elevators and warehouses throughout the Texas rice belt. It is contemplated to expend about \$500,000 for building the plants, including a large central warehouse at Houston.

Houston, Texas.—Road Improvements.—Harris county has voted affirmatively the issuance of \$500,000 for roads and drainage; A. E. Amerman, County Judge. (Referred to March 28.)

Houston, Texas.—Bottling Works.—Houston Bottling Co. incorporated with \$25,000 capital stock by A. Feldman, Carl Hildebrandt and J. C. Goldstein.

Houston, Texas.—Oil Wells.—Bend Oil Co. incorporated with \$6000 capital stock by M. A. Davey, T. E. Birmingham and George A. Watkin.

Houston, Texas.—Prospecting.—Ridge Prospecting Co. incorporated by James Bute and others.

Houston, Texas.—Rice Mill, Elevator and Warehouse.—Pritchard Rice Milling Co. has awarded contract to H. N. Jones for erection of proposed rice mill to have daily capacity of 3000 bags, rice elevator with capacity of 50,000 bags and rice warehouse; mill will be of brick, four stories, 58 feet high, 92x54 feet, and cost \$19,000; elevator 100 feet high, 41x71 feet, and cost \$15,000; warehouse 32 feet high, 125x75 feet, and cost \$12,500. Plans have been prepared by Hayes & Jones; Jonathan Lane, president, and Paul E. Pritchard, secretary-treasurer. (Referred to March 7.)

Kirbyville, Texas.—Oil Wells.—Kirbyville Oil & Pipe Co. incorporated with \$300,000 capital stock by R. C. Myers, B. F. Bean, H. M. Gilbert and others.

Lampasas, Texas.—Cotton-oil Mill.—C. Thompson, Llano, Texas, is interested in the establishment of cottonseed-oil mill.

Lindale, Texas.—Cannery.—T. E. Sikes will erect canning factory; storage-room, 30x50 feet; canning shed, 90x37 feet; daily capacity from 8000 to 12,000 cans.

Marfa, Texas.—Quicksilver Mining.—Texas Quicksilver Mining Co. incorporated with \$50,000 capital stock by G. J. Gaisner and H. S. D. Wright of Louisville, Ky., and S. T. Bisbee, Oklahoma City, O. T.

Mineral Wells, Texas.—Lumber.—Mineral Wells Lumber Co. incorporated with \$30,000 capital stock by W. McMillan and C. McMillan of Mineral Wells and F. W. Wood, Brenham, Texas.

Orange, Texas.—Woodworking Plant.—Pond & Howell have completed the erection of building in which they will install equipment, including band saw, planing machine, drills, lathes, etc., to be operated with gasoline power. Door and window screens and woodwork of all kinds will be manufactured.

Pearsall, Texas.—Cottonseed-oil Mill.—Frio Cotton Oil Co. incorporated with \$40,000 capital stock.

Pottsboro, Texas.—Oil Wells.—North Texas Oil & Gas Co. has been organized with \$50,000 capital stock. It controls leases on several thousand acres of land near Pottsboro and is now drilling for oil; A. P. Smith, president; L. E. Crisp, secretary, both of

Weleetka, I. T., and E. T. Judd, Pottsboro, treasurer.

San Angelo, Texas.—Cotton Compress.—Reported that W. C. Churchill, Brownwood, Texas, and W. B. Ray, Ballinger, Texas, are making preliminary arrangements for establishing \$40,000 cotton compress, to be operated by the Western Compress Co.

San Angelo, Texas.—Cottonseed-oil Mill.—San Angelo Cotton Oil Co. is considering bids for erection of buildings for oil mill.

Sanger, Texas.—Cotton Gin.—Farmers & Merchants' Gin Co., lately reported organized, will erect and equip buildings at cost of about \$8000; capacity about 30 to 40 bales per day. Officers are: C. E. Malone, president; Homer Collins, secretary.

Seminole, Texas.—Cotton Gin and Mill.—Gaines County Gin & Mill Co. incorporated with \$5000 capital stock; W. H. Brennand, president, and D. J. Thomas, secretary.

Smithville, Texas.—Cotton Gin and Warehouse.—Farmers' Union Gin & Warehouse Co. incorporated with \$15,000 capital stock by G. M. Thompson, W. L. Driskel, B. F. Gardner, E. M. Little and others.

Somerville, Texas.—Oil Wells.—Brown Oil Co. incorporated with \$30,000 capital stock by W. T. Dunlap, J. D. Giddings, E. Brown and others.

Taylor, Texas.—Hardware.—Wittliff Hardware Co. incorporated with \$35,000 capital stock by T. H. Wittliff, Adolph Wittliff and Julius Wittliff.

Temple, Texas.—Gas Plant, Electric-light, Sewerage and Water-works Systems.—Frank L. Denison and associates have applied for gas franchise. City is also considering the municipal ownership of electric-light, sewerage and water-works systems. Address The Mayor. (Referred to February 7.)

Waco, Texas.—Publishing.—Star Publishing Co. incorporated with \$25,000 capital stock by H. B. Terrell, A. M. Kenner and W. W. Cameron.

Wichita Falls, Texas.—Telephone System.—Wichita Falls & Northwestern Telephone Co. incorporated with \$10,000 capital stock by R. E. Huff, C. C. Huff and William McGregor.

VIRGINIA.

Bristol, Va.—Lumber Company.—H. M. Hoskins Lumber Co., reported incorporated April 4 with \$25,000 capital stock to operate band mill with capacity of 25,000 feet and three circular mills, each with a capacity of 10,000 to 12,000 feet, has elected H. M. Hoskins, president; C. A. Ryburn, vice-president and general manager, and F. W. Kelly, secretary.

Charlottesville, Va.—Lumber Plant.—Piedmont Lumber Corporation, lately reported incorporated, will erect lumber sheds at cost of \$15,000 for buildings and equipment; will have planing mill and general line builders' supplies; general manager, C. R. Randolph.*

Covesville, Va.—Cider Plant.—Covesville Cider Co., lately reported incorporated, will establish plant for the manufacture of apple cider and vinegar. Two-story building 40x70 will be erected at cost of \$4000 to \$5000; capacity at first about 100,000 gallons per year; officers, J. G. Martin, president; H. S. Martin, vice-president; J. J. Boaz, secretary and treasurer. Company has paid-in capital of \$10,000.*

Danville, Va.—Brick Plant.—J. T. Watson Brick Co. incorporated with \$30,000 capital stock by John T. Watson, Jr. (secretary-treasurer), M. G. Watson and M. Johnston.

Dickenson County, Va.—Coal Mines.—Reported that G. W. Greer, Whitesburg, Ky., has purchased 2000 acres of coal lands in Dickenson county for development.

Elliston, Va.—Timber Development.—Geo. E. Davis & Co., Bristol, Va.-Tenn., have purchased over 5000 acres of white-pine, oak and hemlock timber lands and will develop same. Company will contract logging and sawing to small portable mills with daily capacity of 5000 to 15,000 feet each. One mill now in operation is cutting 12,000 feet daily. Robert Gray, C. E., will have charge of tramroad construction.

Harrisonburg, Va.—Hardware.—Wilton-Nicholas Hardware Co. incorporated with \$50,000 capital stock; C. L. Wilton, president; F. F. Nicholas, vice-president, and B. C. Wilton, secretary-treasurer.

Louis, Va.—Mineral Development.—National Mineral Corporation incorporated with \$100,000 capital stock; H. J. Schmitz, Allegheny, Pa., president, and James L. Devenny, Pittsburg, Va., secretary-treasurer.

Manchester, Va.—Iron and Metal Works.—Virginia Iron & Metal Co. incorporated with \$25,000 capital stock; Louis Burnstein, president; S. S. Smith, secretary-treasurer.

Newport News, Va.—Shipbuilding Plant.—Newport News Shipbuilding & Dry-Dock Co. contemplates making improvements to its

shipbuilding plant; C. B. Orcutt, 1 Broadway, New York, N. Y., president.

Norfolk, Va.—Development Company.—United Development Co. incorporated with \$25,000 capital stock; J. G. McNeal, president; B. R. Jones, vice-president, and J. L. Bunting, secretary-treasurer.

Norfolk, Va.—Wire Works.—Norfolk Wire Cloth & Wire Fence Manufacturing Co. proposes the erection and equipment of buildings at cost of \$125,000 for the production of wire fence and wire cloth. Officers are: Paul R. Howard, president, and J. P. Andre Mottu, secretary and treasurer; address, Box 395.

Norfolk, Va.—Coal-handling Plant.—Consolidated Fuel Co. of Norfolk and Bluefield, W. Va., will conduct retail storage yard and build viaduct with coal pockets for loading wagons and screening coal. E. A. Williams is secretary-treasurer and William Shands general manager.

Norfolk, Va.—Concrete-block and Brick Plant.—Rock Face Concrete Block & Brick Co. incorporated with \$10,000 capital stock; W. D. Ward, president; Edward Brokenbrough, vice-president, and William W. Old, Jr., secretary-treasurer.

Petersburg, Va.—Cigar Factory.—Charles A. Bass Cigar Co. incorporated with \$25,000 capital stock; Charles A. Bass, Petersburg, president, and Spencer McGee, Virgilina, Va., vice-president.

Pine Beach, Va.—Sewerage.—Pine Beach Sewerage Corporation incorporated with \$15,000 capital stock by A. D. Jones, E. Peyser, John Lowery and others, all of Newport News, Va.

Pocahontas, Va.—Ice Plant.—Pocahontas Ice Co. incorporated with \$10,000 capital stock by A. L. Aaron (president), L. Magrill, Max Davis and others.

Richmond, Va.—Publishing.—Co-operative Press incorporated with \$50,000 capital stock; I. E. Campbell, president, and W. W. Harris, secretary-treasurer.

Richmond, Va.—Lumber.—Ellington & Guy incorporated with \$100,000 capital stock; B. H. Ellington, president; Charles R. Guy, vice-president, and H. D. Carrier, secretary.

Roanoke, Va.—Bakery.—Roanoke Baking Co. incorporated with \$25,000 capital stock by M. W. Turner (president), L. B. Cabaniss and L. S. Davis.

Tip Top, Va.—Supplies.—Tip Top Supply Co. incorporated with \$25,000 capital stock; George Shafer, president; T. R. Smoot, general manager, and J. V. Fox, secretary-treasurer.

WEST VIRGINIA.

Bramwell, W. Va.—Coal Mines and Coke Ovens.—It is understood that plans have been completed ensuring the proposed merger of the Pocahontas Collieries Co. and the Pocahontas Consolidated Co. under the title of the Pocahontas Consolidated Collieries Co. with a capital stock of \$7,500,000 and a bond issue of \$50,000,000, only \$6,000,000 to be disposed of at present, the merger to be effective July 1. The new company acquires title to about 20,000 acres of coal land, estimated to contain 180,000,000 tons of coal, and 2720 coke ovens. Three new mining plants are contemplated for establishment on the Pocahontas & Western Railroad, now under construction. Charles S. Thorne of New York is president of the Pocahontas Collieries Co. and Isaac T. Mann of Bramwell, W. Va., is president of the Pocahontas Consolidated Co.

Clarksburg, W. Va.—Glass Factory.—W. H. Lewis is organizing company to establish glass factory.

Dothan, W. Va.—Telephone System.—Beckley & Fayetteville Telephone Co. incorporated with \$5000 capital stock by Frank Thompson, E. N. Case, Harrison Toney and others.

Elkins, W. Va.—Tannery.—Elkins Tanning Co. will enlarge plant, doubling present capacity. About \$60,000 will be expended.

Harper's Ferry, W. Va.—Onyx Quarries.—United States Onyx Co., lately reported as being organized, will erect and equip buildings at cost of \$10,000; size, 40x120 feet; capacity of development, 500 feet onyx per day; manager, R. B. Miller; principal address, Martinsburg, W. Va.

Huntington, W. Va.—City is considering the issuance of \$30,000 of bonds for macadamizing roads from the paved streets to the town limit. Address The Mayor.

Huntington, W. Va.—Road Improvements and Bridge.—Cabell county has voted affirmatively the issuance of \$240,000 of bonds for building macadamized roads and erecting bridge across the Guyan river at Barboursville, W. Va. Address County Commissioners.

Huntington, W. Va.—Coal Mines.—Mason Coal & Coke Co. incorporated with \$250,000 capital stock by Z. T. Vinson, W. R. Thompson, T. J. Bryan and others.

Keystone, W. Va.—Street Paving.—City has voted affirmatively the issuance of bonds for street paving. Address The Mayor.

Marlinton, W. Va.—Timber Development.—W. M. Funk, Gassaway, W. Va., has purchased tract of timber on Red Lick Mountain, estimated to cut about 2,000,000 feet, and is organizing company for its development.

Martinsburg, W. Va.—Paving.—Street Committee has adopted plans submitted by Joe U. Isaacs, 210 East Lexington street, Baltimore, Md., for paving Queen street; brick; filler to consist of Portland cement and sand; gutters of vitrified brick next to curb when required by engineer; joints between brick and blocks and along curb grouted with Portland-cement grout; surface drainage to be carried beneath pavement at Queen and Burke streets; 15-inch pipe to be used. Work will soon be advertised. Specifications prepared require that successful contractor shall provide bond of one-half of contract price. (Referred to April 11.)

McMechen, W. Va.—Manufacturing.—McMechen Manufacturing Co. incorporated with \$75,000 capital stock by J. L. McMechen, F. A. Zimmerman, Charles R. Love, W. B. McMechen and others.

Morgantown, W. Va.—Bridge.—Monongalia county will vote June 1 on the issuance of \$75,000 of bonds to build bridge across the Monongahela river. Address County Commissioners.

Mt. Clare, W. Va.—Coal Mines.—Fairmont Coal Co., Fairmont, W. Va., is preparing to reopen Mine No. 1.

Parkersburg, W. Va.—Lumber.—Reitz & Martin Lumber Co. incorporated with \$24,000 capital stock by T. G. Reitz, T. G. Martin, Ralph B. Martin and others.

Parkersburg, W. Va.—Paving.—Board of Affairs will receive bids until May 9 for paving portion of Juliana street with sheet or block asphalt and for combined curb and gutter of concrete, with steel-bound concrete circular curbs; Frank Good, Auditor.

Union, W. Va.—Road Improvements.—Monroe county contemplates issuing \$100,000 of bonds for building macadamized roads. Address County Commissioners.

Wheeling, W. Va.—Street Improvement.—City Council is considering an ordinance authorizing the issuance of bonds to the amount of \$100,000 for proposed future street improvements. Address The Mayor.

INDIAN TERRITORY.

Caddo, I. T.—Oil and Gas Wells.—Caddo Oil & Gas Development Co., lately reported organized, will erect and equip oil tanks at cost of \$10,000 and will drill for crude petroleum and gas; W. F. Clower, president and manager.

Hugo, I. T.—Water-works.—City will vote May 28 on the issuance of \$50,000 of bonds for constructing water-works. Address The Mayor.

Muskogee, I. T.—Water-works and Sewerage.—City will vote on the issuance of \$120,000 of bonds for water-works and \$80,000 for sewers. Address The Mayor.

Sapulpa, I. T.—Water-works and Sewerage.—City has voted affirmatively the issuance of about \$40,000 of bonds for installation of sanitary sewer system and extension of water-works; referred to April 11. Address The Mayor.

OKLAHOMA TERRITORY.

Cleveland, O. T.—Oil Refinery.—Paovo Oil Co. has begun the construction of 100-barrel oil refinery for experimental purposes. If the experiment is satisfactory, the capacity of the plant will be increased.

Frederick, O. T.—Water-works and Sewerage.—City will vote on the issuance of \$10,000 of bonds for extending water-works and \$25,000 for extending sanitary-sewer system. Address The Mayor.

Granite, O. T.—Oil and Gas Wells.—Crystal Oil & Gas Co. incorporated with \$100,000 capital stock by F. B. Felke, Thomas L. Eggleston, Jr., and George McCartney.

Kell (not a postoffice), O. T.—Lumber.—Farmers' Lumber Co. incorporated with \$10,000 capital stock by W. R. Ferguson, John T. Overby, H. B. Hines, Iowa Park, Texas, and others.

Lawton, O. T.—Townsite.—Southwestern Townsite Co. incorporated with \$100,000 capital stock by J. M. Bellamy, Charles G. Shane and R. P. Hulise.

Navina, O. T.—Elevator.—Viel Rural Elevator Co. incorporated with \$6000 capital stock by A. E. McDoie, John M. Chafer and H. R. Canfield.

Oklahoma City, O. T.—Oil, Coal and Gas Development.—Banner Oil, Coal & Gas Co. incorporated with \$500,000 capital stock by

Charles R. Engelke, Oklahoma City; J. E. Flynn and F. J. Worden, Muskogee, I. T.

Oklahoma City, O. T.—School-desk Manufacturing.—Oklahoma City Desk Co. incorporated with \$250,000 capital stock to erect plant for manufacturing a school desk invented by A. O. Bowers. Fred Brasted, Thomas Campbell and others are interested.

Oklahoma City, O. T.—Printing Press.—Smith Printing Press Co. incorporated with \$40,000 capital stock by J. D. Corley, G. G. Barnes, Frank Wells and others.

Prague, O. T.—Cottonseed-oil Mill.—Prague Cotton Oil Co. incorporated with \$10,000 capital stock by W. H. Mayes, W. M. Morgan and John T. Mozler, all of Norman, O. T., and others.

Prague, O. T.—Cottonseed-oil Mill.—Union Cotton Oil Co. incorporated with \$50,000 capital stock by John G. Lindsay, C. G. Ambruster, W. E. Ambruster and Joe Jepson, all of Norman, O. T.

Shawnee, O. T.—Gas and Oil.—Pottawatomie County Oil & Gas Co. incorporated with \$1,000,000 capital stock by George E. McKinnis, J. L. Robuck, J. W. Ruby and others.

Walter, O. T.—Sewerage and Street Improvements.—City will vote May 6 on the issuance of \$10,000 for construction of sewerage and \$5000 for street improvements. Address The Mayor.

Wanette, O. T.—Oil and Gas Wells.—Wanette Oil, Gas & Development Co. incorporated with \$10,000 capital stock by D. M. Newell, G. R. Flynn, S. E. Wright, J. M. Mundy and others.

BURNED.

Airline, Texas.—Jake Strack's sawmill; loss \$10,000.

Central City, W. Va.—G. W. Wyser's cabinet factory.

Charleston, W. Va.—Kelly Ax Manufacturing Co.'s storeroom and machine shops damaged; loss from \$30,000 to \$50,000.

Guthrie, O. T.—Capital Grain Co.'s grain elevator at Camp Russell; loss \$25,000; A. E. Stinson, president.

Helena, Ga.—Smith Manufacturing Co.'s variety works, planing mill and drykiln; loss \$20,000.

Humboldt, Tenn.—Craven & Cates' grist mill.

Marlinton, W. Va.—Marlinton Steam Laundry; loss \$3000.

McKinney, Texas.—McKinney Oil Mill & Gin Co.'s cotton gin; loss \$12,000.

Mounds, I. T.—Borgelt & Son's grain elevator.

Pulaski, Tenn.—Giles county courthouse. Address County Commissioners.

Scranton, N. C.—W. J. Willoughby's gin and sawmill; loss \$3000.

Winfield, Ark.—Wagner, Crutchfield & Co.'s sawmill.

BUILDING NOTES.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Ashland, Ky.—Residence.—F. B. Moore is having plans prepared by J. R. Gleake, Ceredo, W. Va., for two-story building 50x60 feet. Bids are wanted on brick, stone, concrete, slate roofing, woodwork, electric wiring, electric and gas fixtures, plumbing and steam heating.

Ashland, Ala.—School Building.—City has voted affirmatively the issuance of \$10,000 of bonds for erection of school building. Address The Mayor.

Atlanta, Ga.—School Buildings.—Sealed bids will be received at office of Board of Education, L. Z. Rosser, president, until May 10 for erecting grammar school at North avenue and Hunt streets, plans and specifications to be obtained at office of Haralson Bleckley, architect, 619 Empire Building, Atlanta, and for grammar school at Grant and Pavilion streets, plans and specifications to be obtained at office of E. C. Wachendorf, architect, 527 Empire Building, Atlanta; usual rights reserved; E. P. Burns, chairman building committee.

Atlanta, Ga.—Dwelling.—M. R. Wilkinson will erect dwelling, for which plans are being prepared by W. T. Downing.

Atlanta, Ga.—Residence.—W. R. Jamison is having plans prepared by Harry L. Walker for \$6000 residence; ordinary construction; gas and electric lighting; contract not yet let.

Baltimore, Md.—Dwellings.—Daniel Donnelly, 2333 East Hoffman street, will erect 16 two-story brick dwellings on Biddle street

between Patterson Park and Montford avenues to cost \$16,000; James M. Coulling, builder, 2126 Ashland avenue.

Baltimore, Md.—Dwellings.—Edward L. Ward, builder, 812 Fidelity Building, Charles and Lexington streets, will erect 14 two-story dwellings on Stevenson street, between Clement street and Fort avenue, to cost \$14,000; George Clothier, Jr., architect, 11 East Lexington street.

Baltimore, Md.—Walter L. Westphal, builder, 1700 North Bond street, will erect 24 two-story brick dwellings on Chapel street between North and Lafayette avenues to cost \$20,000.

Baltimore, Md.—Dwelling.—R. Brent Keyser, Keyser Building, Calvert and German streets, has awarded contract to John Cowan, 106 West Madison street, for the construction of four-story brick addition 17x102 feet to his dwelling at 1301 North Calvert street, to cost \$10,000.

Baltimore, Md.—Warehouse.—Daniel Miller building Co., 28-32 Hopkins place, will erect warehouse at 34 Hopkins place and extending through to 33 South Liberty street; seven stories, 32x210 feet; brick with terra-cotta trimmings; electric wiring and fixtures; sanitary plumbing; heating system; sprinkler system; Wyatt & Nolting, architects, Keyser Building, Calvert and German streets.

Baltimore, Md.—Amusement Building.—Pearce & Scheck, 227 North Eutaw street, have awarded contract to Henry L. Mass, 1121 Ensor street, for the construction of amusement building at 35 West Lexington street; one story, 16x80 feet; stucco exterior; electric wiring and fixtures; sanitary plumbing; Louis Levi, architect, American Building, Baltimore and South streets.

Baltimore, Md.—Clubhouse.—P. E. Church of Ascension, Robert G. Coupland, rector, 827 North Arlington avenue, has awarded contract to R. N. McCulloh & Co., 118 East Lexington street, for the construction of addition to clubhouse at 85 Arlington avenue; two stories; brick with stone trimmings; electric wiring and fixtures; sanitary plumbing; heating system; cost \$6000; John Freund, Jr., architect, Vansant Building, 210 East Lexington street.

Baltimore, Md.—Dwellings.—Clarence Hampson, 307 St. Paul street, will erect 21 two-story brick dwellings on Wilkens avenue and Brunswick street to cost \$21,000.

Baltimore, Md.—Warehouse.—James J. Hartlove, 104 North Gay street, has purchased building at northwest corner Light and Camden streets, and will expend \$25,000 in remodeling it into wholesale liquor warehouse. J. H. Miller, 110 Dover street, has been awarded contract for the work.

Baltimore, Md.—Club Building.—The Benevolent and Protective Order of Elks, 307 West Fayette street, has purchased lot at 309 and 311 West Fayette street and will erect an addition to its clubhouse on the site, which is 33x154 feet. It is reported that Alfred Mason, architect, 746 West Baltimore street, will prepare the plans and specifications for the building.

Baltimore, Md.—Office Building and Warehouse.—J. Henry Miller, builder, 110 Dover street, will erect two-story brick office building and warehouse, 28x58 feet, at 106 and 108 Dover street.

Baltimore, Md.—Office Building.—Rice Bros., bakers, 312-330 North Gay street, have awarded contract to C. L. Stockhausen, National Marine Bank Building, Gay and Water streets, for the construction of three-story brick and stone office building 40x40 feet. Owens & Slaco, architects, Continental Building, Baltimore and Calvert streets.

Baltimore, Md.—Store Building.—Wm. T. Littlepage, Jr., & Co., 1525-1533 West Baltimore street, has awarded contract to C. L. Stockhausen, National Marine Bank Building, for the construction of store building at southeast corner Baltimore and Calhoun streets; four stories; 20x153 feet; brick with stone trimmings; electric wiring and fixtures; sanitary plumbing; heating system; elevator. Henry J. Tinley, architect, Hoffman Building, 11 East Lexington street.

Barbourville, Ky.—School Building.—J. M. Dunn & Son, Knoxville, Tenn., have contract to erect \$50,000 school building after plans by Barber, Klutz & Graf.

Beville, Texas.—Depot.—San Antonio & Aransas Pass Railway is reported to expend about \$30,000 in enlarging depot and improving track facilities; W. M. Hobbs, San Antonio, Texas, general manager.

Birmingham, Ala.—Stable.—J. Fies & Son have awarded contract to Allen J. Krebs & Co. for erection of stable; 150x140 feet; two stories; second floor entirely of glass and contain sales ring 20x150 feet; cost \$30,000. Present building will be remodeled and con-

verted into stores and business buildings; new structure to be completed by August 15.

Bristol, Va.-Tenn. - Theater. - Interstate Hotel Co., Dr. Geo. E. Wiley, president, will erect fireproof theater in connection with proposed \$100,000 hotel; seating capacity 2000. Plans have been prepared by Barber & Klutz, Knoxville, Tenn.

Buena Vista, Va.-Storerooms and Hotel.-Business building to be erected by T. T. Dickinson & Bro. will be combination of storerooms and hotel; plans not yet selected; as contemplated, building will be of brick, 125x75 feet, with electric lighting, and cost about \$25,000; open for bids on plans and specifications, contracting and heating. (Mentioned recently.)

Bunkie, La.-Office and Store Building.-Mohawk Building Co., Ltd., recently reported organized, will erect office and store building 60x160 feet; fireproof; electric lighting; cost \$10,000 or \$12,000; bids to be opened about May 1. Company has elected the following officers: President, R. J. Marshall; vice-president, H. E. Owen; secretary and treasurer, John T. Rhodes. George Chaschre, Opelousas, La., is drawing plans for building.

Cabot, Ark.-Church.-M. E. Church South has awarded contract to S. M. Apple for erection of brick edifice to cost \$4500.

Center Point, Texas.-Bank Building.-Guadalupe Valley Trust Co. will erect two-story brick building.

Charlotte, N. C.-Apartment-house.-W. I. Van Ness & Co. have let contract to J. D. Brown the three-story building to cost about \$10,000; ordinary construction; electric and gas lighting; architect, L. L. Hunter.

Chattanooga, Tenn.-Store and Apartment Building.-Huffaker, Fugua & Co. have let contract to Manley Construction Co. for erection of building recently mentioned. Building will be of fireproof construction, reinforced concrete, 80x45 feet; three stories; gas and electric lighting; cost \$7500; architect, F. J. Manley.

Dallas, Texas.-Residence.-T. F. Loughlin is having plans prepared by H. A. Overbeck for 12-room brick residence to be erected at cost of \$12,000; building to have hot-water heating, electric and gas lighting.

Ceredo, W. Va.-School Building.-Board of Education will erect addition to public-school building; 26x56 feet; two stories; architect, J. R. Gieske; building will have tin roof, gas fixtures and plumbing; brick, stone, concrete and woodwork will be used in construction. Address Board of Education, Ceredo, Ind. Pt. District, W. Va.

Charleston, Mo.-Building.-J. J. Russell is having plans prepared for building 80x40 feet; fireproof; steam heat; electric lighting; cost \$15,000; bids to be opened soon; architect, J. B. Legg, St. Louis, Mo.

Charlestown, W. Va.-Bank Building.-Farmers & Merchants' Deposit Co. has had plans prepared by A. B. Mullett & Co., Washington, D. C., for erection of bank building; 40x46 feet; brick with mansard roof; granite and brownstone trimmings; exposed walls on two fronts of fancy brick laid with steel-tooled joint in white mortar; steps and sill of main entrance of light-gray granite; lower portions of side walls of vestibule finished in Vermont marble with molded plinth blocks; gas and electric lights; steam heat; concrete sidewalk.

Chickasha, I. T.-Lodge, Office and Store Building.-Rosenquist, McFarland & Eisenfelder have had plans prepared by Edward Condy for lodge, office and store building; three stories; 75x100 feet; press brick and stone; plate glass; architectural and structural iron and steel work; gas and electric lighting; cost \$20,000.

Childersburg, Ala.-Town Hall.-Childersburg Realty & Manufacturing Co., owner, has let contract to J. H. Duke & Son, Anniston, Ala., for erection of town hall, which will be two-story brick building; D. A. Oden, secretary. (Mentioned recently.)

Clarksville, Ark.-Church.-Methodist Church South contemplates erecting edifice to cost approximately \$8000.

Clarksville, Ark.-Cotton Warehouse.-Farmers' Union of Johnson county will erect warehouse.

Commerce, Texas.-College Building.-Contract for rebuilding of East Texas College has been let to T. A. Lindsey (as recently mentioned). Plans are by George Lindsey, Greenville, Texas; size of building 128x76 feet; wings 43 feet in width; brick with concrete foundations; steel lintels and girders; cast columns; metal ceilings; gravel roof; ordinary construction; steam or hot-air heating; electric fixtures; cost about \$30,000. Address W. L. Mayo, president.*

Cordell, O. T.-College Building.-Christian College will begin the erection of proposed building about May 1; cost \$10,000; J. H. Lawson, Benton, Texas, president.

Covington, Ky.-Warehouse.-Kenton County Warehouse Co. incorporated with \$5000 capital stock by H. P. Stephens, M. L. Galvin, F. M. Tracey and J. L. Rich.

Covington, Ga.-Church.-Messrs. Bruce & Everett, Atlanta, Ga., are preparing plans for erection of Baptist Church at Covington.

Crest, Ga.-Warehouse.-Crest Warehouse Stock Co. incorporated with capital stock of \$5000 by J. A. Mallory, J. M. Barker, H. M. Collier and others.

Dallas, Texas.-School Building.-City has not yet let contract for erection of school building mentioned April 25. Lang & Mitchell have prepared plans; building will be of brick, stone, iron and concrete construction; about 180x200 feet; fireproof; electric lighting; steam heat; fan system; cost \$150,000; bids to be opened May 10.

Dayton, Ky.-Residence.-Hubbard Schwartz has had plans prepared by C. C. & E. A. Weber, St. Paul Building, Cincinnati, Ohio, for two-story, eight-room residence, to cost \$5000.

Earlington, Ky.-Bank Building.-Peoples' Bank, Frank B. Arnold, cashier, has awarded contract to Farnsworth & Shanks (composed of R. P. Farnsworth, Henderson, Ky., and Jack Shanks, Madisonville, Ky.) for erection of new bank building; three stories; 20x60 feet; press brick; cost \$10,000; plans by Harris & Shopbell, Evansville, Ind. Bids will be received until April 27.

East Point, Ga.-Dwellings.-Germania Savings Bank will erect 20 dwellings after plans by Chas. A. Hayes, 409 Prudential Building, Atlanta, Ga.

Eldorado, Ark.-Warehouse.-Farmers' Union of Union county will erect cotton warehouse to cost \$15,000; E. L. G. McGraw, L. Justiss, M. F. Thurmon, J. V. Jenny and others, directors.

Fairfax, S. C.-Residence.-Mr. Owens will erect residence at a cost of \$5000. D. G. Zeigler, Columbia, S. C., is preparing plans.

Fairmont, W. Va.-Hotel.-Shaw Hotel Co. incorporated with \$100,000 capital stock by A. E. Shaw, M. E. Ashcroft, J. W. Crown and others.

Galveston, Texas.-Residence.-J. C. Walker is having plans prepared by Cooke & Co. for residence; two stories with basement; cost \$12,000.

Galveston, Texas.-Residence.-J. J. Quilter has contract to erect dwelling for Morris Stern after plans by Cooke & Co.; two stories; nine rooms; colonial style; cost \$12,000.

Galveston, Texas.-Residence.-Frank Moody has awarded contract to Bowden & Worth for erection of two-story brick residence to cost \$25,000.

Galveston, Texas.-Residence.-D. W. Kemper will build residence; cement construction; cost \$25,000; architects, Mauran, Russell & Garden, St. Louis, Mo.

Goldboro, N. C.-School Building.-Plans are being prepared for erection of high-school building to cost \$15,000; E. C. Brooks, superintendent.

Greensboro, N. C.-School Building.-Bids will be closed in 10 days for erecting three school buildings costing about \$30,000. Plans can be seen at office of architects, S. W. Foulk & Sons and W. L. Brewer, Greensboro, N. C.; usual rights reserved. Apply to Geo. Grimsley, president, or C. H. Ireland, secretary City School Board. (Referred to March 21.)

Greenwood, Miss.-Residences.-S. L. McGinnis & Co. have contract to erect two residences, one for R. C. King and the other for Mrs. Galloway; cost about \$5000 each.

Hattiesburg, Miss.-Office Building.-Western Union Telegraph Co. is reported to erect office building; G. W. Loyd, Atlanta, Ga., Southern superintendent.

Havre de Grace, Md.-Church.-St. Patrick's Catholic Church is having plans prepared by Thomas C. Kennedy, 113 North Charles street, Baltimore, Md., for erection of stone edifice on site 45x100 feet; parsonage will be built in connection.

Hawkinsville, Ga.-City Hall and Auditorium.-City let contract April 24 for erection of City Hall and auditorium; cost \$16,470; contractors, J. L. Huggins & J. D. Smith; W. R. Gunn, Macon, Ga., prepared plans and will supervise building; structure will be two stories, of press brick, have steam heat and electric lighting; will contain City Hall and offices, library for Daughters of the Confederacy, and auditorium with seating capacity of 800 to 1000; building to be completed by November. (Mentioned recently.)

Holdenville, I. T.-Business Building.-G. W. McShan's business building, contract for which was recently mentioned, will be 54x120 feet; brick, with stone foundation; ordinary construction; electric lighting; architect, R.

A. Dalley; contractor, W. J. Britten; cost of building, \$5000.

Houston, Texas.-Residence.-S. A. Coulter has contract to erect residence in Hyde Park for H. M. Holleman; 47x56 feet; cost \$7500.

Houston, Texas.-Theater.-John Dickey and Charles E. Hodkins propose erecting summer theater.

Houston, Texas.-Courthouse.-Harris county has voted affirmatively the issuance of \$500,000 of bonds for erection of courthouse; A. E. Amerman, County Judge. (Referred to March 28.)

Houston, Texas.-Theater.-Harvey T. D. Wilson, M. C. Michael and associates will erect summer theater after plans by Cooke & Co.; L-shape; three entrances, each 20 feet wide; auditorium 100x150 feet; roof garden; colonial style of architecture; cost \$30,000.

Houston, Texas.-Building.-J. L. Mitchell has awarded contract to C. H. Winn for the erection of proposed building after plans by H. C. Cooke; five stories with basement; 50x100 feet; fireproof throughout; cost \$50,000.

Houston, Texas.-Lodge Building.-Young Men's Christian association has awarded contract to Young & McCoy for erection of five-story-and-basement building. Contract for heating, plumbing and wiring will soon be awarded. Young & McCoy will also have charge of excavation work.

Houston, Miss.-Bank Building.-Chickasaw County Bank (branch of Grenada Bank, Grenada, Miss.) will erect brick bank building with plate-glass and stone front; A. L. Jagoe, manager.

Jackson, Miss.-Store and Office Building.-R. W. Millsaps has awarded contract to W. J. McGee for erection of store and office building to cost \$15,000.

Jackson, Miss.-Bank Building.-Central Bank of Mississippi, recently organized by Lucian E. Schilling, Magnolia, Miss., and others, has purchased site at \$32,000 on which to erect modern bank and office building, probably six stories high.

Jacksonville, Fla.-Warehouses.-Atlantic & East Coast Terminal Co. will erect two warehouses, each 645x191 feet, and equipped with fire walls and automatic fire doors. One building will have a second story 129 feet 6 inches long by 38 feet wide and the other a second story 309 feet 6 inches long by 48 feet wide. Between the two structures a 49-foot driveway will be laid for truckage.

Jacksonville, Fla.-Lodge Building.-Grand Lodge of Masons has accepted plans by L. M. Weathers, Memphis, Tenn., for proposed Masonic Temple; reinforced concrete; seven stories; classic style of architecture; banquet hall with seating capacity of 400; cost \$10,000. Bids will soon be invited; George L. Drew, member of committee.

Jasper, Ala.-Hotel.-J. H. Cranford is promoting the erection of three-story brick hotel.

Kansas City, Mo.-Warehouse.-J. F. Richards will erect four-story brick warehouse to cost \$30,000.

Kansas City, Mo.-School Building.-Holy Rosary Church will erect school building; two stories; brick; cost \$5000. Address The Pastor.

Kansas City, Mo.-Warehouse.-Charles Well will erect warehouse 85x100 feet.

Kansas City, Mo.-Warehouse.-Kansas City Union Terminal Warehouse Co. incorporated to build and maintain distributing and storage warehouse. It proposes to erect three buildings on site of seven and one-half acres, investing about \$2,000,000. Main building will be divided into 210 sections, each 40x75 feet; second structure will be subdivided into 70 sections, each 40x110 feet; total floor space about 1,000,000 square feet. Structures will be equipped with 50 electric elevators, movable platform floors, link belt and spiral conveyors for the rapid handling of freight to and from the various compartments. In addition to the warehouses, there will be erected an office building of 150 suites and a large manufacturing building containing 372,000 square feet, so arranged that several tenants can conduct manufacturing enterprises in the same structure; John P. Wagner, president, and James H. Harkless, secretary-treasurer.

Kansas City, Mo.-Hotel and Business Building.-Mrs. Mary McClintock has had plans prepared by F. J. Jackson, Dwight Building, for hotel and business building; three stories and basement; 36x80 feet; brick and stone; plate glass; hard plaster; tin and composition roofing; structural iron and steel work; gas and electric fixtures; steam heat; cost \$15,000.

Kansas City, Mo.-Courthouse.-A. E. Madori has contract at \$777 to erect an addition to the criminal court building.

Kansas City, Mo.-Office Building.-James

F. Halpin will erect two-story brick office building to cost \$20,000.

Kenova, W. Va.-School Building.-Board of Education will erect school building, 70x80 feet, two stories; architect, J. R. Gieske, Ceredo, W. Va. Building will have tin roofing, plumbing and gas fixtures. Brick, stone, concrete and woodwork will be used. Address Board of Education, Ceredo, Independent Pt. District, West Virginia.

Kinston, N. C.-Warehouse.-Cotton warehouse company is being organized, and a committee has been appointed with Dr. Henry Tull, chairman. Capital stock will probably be \$75,000.

Kinston, N. C.-Bank Building.-Bank of Kinston has had plans prepared by H. W. Simpson, Newbern, N. C., for bank and office building; four stories; 49x79 feet; press brick, granite and terra-cotta; iron and steel work; plate glass; steam heat; cost \$25,000. (Referred to March 21.)

Kissimmee, Fla.-Park, Bank Building, Hotel, etc.-Harry W. Thurman, Harry W. Thurman Transportation Co., is reported as planning park with swimming pool, erection of bank and postoffice building, cement addition to present hotel, cement store and office building, and organization of company to build new hotel fronting on lake.

Knoxville, Tenn.-Residence.-Thomas & Turner have secured permit to erect brick residence for C. J. McClung to cost \$10,000.

Laurens, S. C.-School Building.-Contractors wishing to bid on the Laurens graded-school building will file request for drawings at once with Edwards & Walter, architects, Columbia, S. C. Each request is to be accompanied with certified check for \$25. Sealed bids will be received May 28 addressed to J. W. Ferguson, chairman. Each bid is to be accompanied with certified check for \$2000; usual rights reserved; C. H. Roper, secretary.

Laurens, S. C.-School Building.-Edwards & Walter, Columbia, S. C., are preparing plans for the erection of school building recently mentioned; estimated cost, \$30,000; bids to be opened May 28. Address Secretary City School Board.

Louisville, Ky.-School Building.-Louisville School Board has awarded contracts for erection of the Duker-avenue school building as follows: George Hoertz, brickwork, \$11,923; L. Just & Co., carpentry and hardware, \$10,824; Nolan Bros., plumbing and gasfitting, \$2144; F. A. Clegg & Co., steam heating, \$5600; Grainger & Co., ironwork, \$3372.20.

Louisville, Ky.-School Building.-Sealed proposals will be received at office of Charles C. Martin, secretary Louisville School Board, until May 10 for erection of school building at 34th and Chestnut streets according to plans and specifications on file in office of D. X. Murphy & Bro., architects. Kind of work bid on must be stated on the addressed side of sealed envelope. Certified check for 5 per cent. of amount must accompany all bids; usual rights reserved.

Louisville, Ky.-Store Buildings.-Snead Realty Co. incorporated with \$57,000 capital stock by Udolpho Snead, E. R. Snead and Evelyn Snead Barnett. It has purchased site 180x105 feet on which to erect nine store buildings, corner structure to occupy site 20x105 feet, and each of the remaining buildings site 20x80 feet; one story; brick; ornamental fronts with plate-glass windows; skylights.

Madill, I. T.-Masonic Temple.-John Sparger, Bonham, Texas, will prepare plans and specifications for proposed Masonic temple; 50x150 feet; two stories; brick and stone; cost \$25,000. (Referred to March 21.)

Madisonville, Ky.-Residence.-Ruby Lumbar Co. has had plans prepared by Harris & Shopbell, Evansville, Ind., for store building; three stories, 50x100 feet; cost \$10,000; bids will be received until May 1.

Manchester, Va.-City Hall.-Building and Lands Committee will have plans and specifications prepared for City Hall, for which \$15,000 will be appropriated; L. R. Brown, O. L. Godwin and T. E. Taylor, committee in charge.

Manor, Texas.-School Building.-Independent School District, Travis county, will erect school building; concrete; two stories; nine rooms; cost \$14,500; architect, Boyce Austin.

Memphis, Tenn.-Residence.-W. S. Lagrill has obtained permit to erect dwelling for T. J. Turley; two stories; brick veneer; slate roof; concrete foundation; eight rooms; cost \$8000.

Memphis, Tenn.-Residence.-J. W. Sanford has secured permit to erect dwelling for I. Mendel; two stories; 12 rooms; frame; cost \$4800.

Memphis, Tenn.-Business Building.-Madison Improvement Co. incorporated with \$28-

600 capital stock by W. C. Paul, M. S. Miller, H. C. Williamson and others. It is now erecting building which, when completed, will cost \$30,000; buff brick; three stories, 71x148 feet.

Memphis, Tenn.—Bank Building.—Mercantile Bank will have plans prepared by Shaw & Pfeil for remodeling bank building; stone front; cost \$15,000.

Memphis, Tenn.—Residence.—M. G. Bourke will erect dwelling; two stories; eight rooms; frame; cost \$5,000.

Memphis, Tenn.—School Building.—Ellendale Land Co. will erect building to cost \$25,000 and be equipped with plumbing, water system and electric plant. Residence, located on the property, will be improved, making the total expenditure about \$35,000. About 20 acres will be used for the school campus; John H. Phillips, second vice-president; Prof. A. S. Maddox, Little Rock, Ark., will be in charge.

Memphis, Tenn.—Store and Flat Building.—Frank Novitski is having plans prepared by A. A. Chighizola for erection of brick and stone store and flat building to cost about \$10,000.

Meridian, Miss.—Freight and Passenger Depots.—New Orleans & Northeastern Railroad (Queen & Crescent Route) is reported to erect freight and passenger depots; D. D. Curran, 839 Gravier street, New Orleans, La., general manager.

Meridian, Miss.—Synagogue.—Congregation Beth Israel will erect building after plans by P. Kraus at cost of about \$40,000; contractor, Charles Dobbs; building to be 60x100 feet; ordinary construction; electric and gas lighting. Address Rabbi Max Raisin, Box 243.

Memphis, Tenn.—Apartment-house.—I. W. Asher has purchased site 75x300 feet at \$7500 on which to erect apartment-house.

Memphis, Tenn.—Apartment-house.—A. T. Bell, Winona, Miss., will erect apartment-house after plans by L. M. Weathers; brick veneer with stone trimmings; four flats of six rooms each; two stories; cost \$15,000.

Memphis, Tenn.—Grain Elevator.—R. N. Erlon is preparing plans for an addition to Patton-Hartfield Company's elevator to cost \$10,000.

Midland, Texas.—Church.—First Baptist Church will erect church edifice at cost of \$20,000; 72x98 feet; fireproof; steam heat; electric lighting; building to be completed September, 1907; architect, Milton Scott, Waco, Texas; contractor, J. E. Johnson, Waco, Texas.

Midland, Texas.—Church.—Herbert & Green, Waco, Texas, are preparing plans for church building, 54x84 feet; ordinary construction; electric lighting; Grassius heater; cost \$12,000; bids to be opened June 1; E. R. Bryan, chairman building committee.

Monterey, Ky.—Warehouse.—Monterey Realty & Warehouse Co. incorporated with \$7000 capital stock by L. H. McGraw, W. D. Hardin and John McGraw.

Muskogee, I. T.—School Building.—City will vote on the issuance of \$100,000 of bonds for erecting high-school building. Address The Mayor.

Napoleonville, La.—Business Building.—Imperial Drug Co. has purchased site at \$27,000 on which to erect two-story brick building.

Nashville, Tenn.—College Building.—Burd College is having plans prepared by Charles A. Ferguson for erection of additional building; two stories; brick; stone foundation; slate or tin roof; steam heat; water and electric-light plants; cost \$16,000. Old structures will be converted into dormitories; Frank Boensch, Jr., and O. F. Noel, owners of property.

Nashville, Tenn.—Residence.—W. A. Skelton has awarded contracts for erection of two-story brick dwelling to cost about \$500, as follows: Foundation, Sharpe & Co.; brick work, J. H. Hutchison & Co.; carpenter work, Capitol Planing Mills, and plumbing, Ryan & Son. Charles A. Ferguson prepared plans and specifications.

Newberry, S. C.—Concrete Buildings.—D. G. Ziegler, Columbia, S. C., is preparing plans for reinforced concrete buildings for the following: Copeland Bros., W. D. Williams, Mrs. A. C. Shumper, Messrs. Sheller & Summer, Rev. H. W. Whittecher, Lomnick & Livingston, E. C. Sonnenburg and O. & T. E. Sobter. These buildings will be used for stores, flats, etc., and will cost about \$200,000; steam heated; bathrooms; common roofing; tile floors; office fixtures; plate glass and sash bars; steel beams and girders; metal frames; wire glass; steel ceilings and electric wiring. (Day's work.)

New Orleans, La.—School Building.—United Construction Co. has contract at \$48,997 for erection of brick school building.

New Orleans, La.—Residence.—W. T. Jay,

Audubon place and St. Charles avenue, will erect residence after plans by Toledano & Wogan; contract not yet let; brick building; hot-water heating; cost \$30,000.

Oklahoma City, O. T.—Store Building.—Levy Bros. are having plans prepared by Van Meter & Schmitt for store building; three stories, 50x140 feet; press brick and stone; marble and tile work; plate glass; reinforced-concrete flooring; hard plaster; gas and electric lights; composition roof; architectural and structural iron and steel work; cost \$35,000.

Oklahoma City, O. T.—Business Building.—Dr. J. A. Ryan is having plans prepared by Edward Condy for building; four stories, 50x100 feet; press brick and stone; plate glass; hard plaster; gas and electric lights; architectural and structural iron and steel work; tar and gravel roofing; cost \$26,000. (Referred to April 18.)

Oklahoma City, O. T.—Office Building.—H. N. Rummell has not yet let contract for office building referred to April 25. As proposed, building will be 50x100 feet, not less than three stories and basement; gas-lighting; estimated cost \$30,000 to \$35,000. Correspondence desired with contractors for concrete buildings. Address H. N. Rummell, 107 North Robinson street.

Oklahoma City, O. T.—Lodge Building.—George Kelley has had plans prepared by Van Meter & Schmitt for adding four stories to Masonic Temple; press brick and stone; plate glass; marble and tile work; gas and electric fixtures; architectural and structural iron and steel work; cost \$30,000.

Oklahoma City, O. T.—Building.—Mrs. Ida B. Coutant will erect building after plans by T. J. Humphreys; contractor, Ira Alspach; building to be 42x68 feet, with tower and sun parlor; steam heating; combination lighting; cost \$5000 to \$6000.

Orangeburg, S. C.—Opera-house.—D. G. Ziegler, Columbia, S. C., is preparing plans for a town hall, opera-house, stores and market-house to be erected by Wm. C. Wolf; estimated cost \$100,000; reinforced concrete; three stories; tile floors; common roofing; steam heat; interior to have marble finish; skylights; plumbing; electric wiring and fixtures; stage fixtures; plate glass, etc. (Day's work.)

Paducah, Ky.—Apartment-house.—Bids are being received by A. L. Lassiter, architect, for erection of apartment-house having four flats for Mrs. Harry Tandy; cost \$7500.

Pine Bluff, Ark.—High-school Building.—Sealed proposals will be received until May 20 by directors of School District of Pine Bluff for erection of brick high-school building. Drawings and specifications can be seen after May 1 at office of Pine Bluff Trust Co., Pine Bluff, or at office of George R. Mann, architect, Little Rock, Ark. All proposals must be accompanied with certified check of \$500; usual rights reserved. S. M. Taylor is president and M. Hanf secretary board of directors.

Portsmouth, Va.—School Building.—Western Branch District School Board, W. R. Houghton, chairman, will erect two school buildings at Port Norfolk and Piedmont Heights; two stories; brick; eight rooms each; cost \$20,000.

Porter, I. T.—School Building.—Charles H. Sudhoelter, Soudheimer Building, Muskogee, I. T., is preparing plans for school building; two stories; eight rooms; pressed brick; hard plaster; tin roof; structural ironwork; gas and electric fixtures; cost \$10,000.

Prosperity, S. C.—Church.—D. G. Ziegler, Columbia, S. C., is making plans for church 60x90 feet for the Lutherans, estimated to cost \$10,000; brick with art glass; seating; slate roofing; tile floors; steel ceiling; rolling partitions and folding doors with track.

Russellville, Ark.—High-school Building.—School Board will have plans prepared by C. L. Thompson, Little Rock, Ark., for erection of high-school building. Bids will soon be advertised.

Rembert, S. C.—School Building.—City will vote May 13 on the issuance of \$3500 of bonds for erecting school building; W. J. Young, chairman Board of School Trustees.

Salisbury, N. C.—Business Building.—M. S. Brown will erect business building on site recently purchased at \$12,650.

Sapulpa, I. T.—School Building.—City has voted affirmatively the issuance of \$15,000 of bonds for erection of school building; referred to February 14. Address The Mayor.

Savannah, Ga.—Clubhouse.—Young Men's Christian Association has awarded contract at about \$40,000 for foundation and walls of proposed new building to the McKenzie-DeLeon Contracting Co., Atlanta, Ga. Contracts for swimming pool and gas, electric and heating apparatus have not been awarded; total cost of structure, \$100,000; Wallin

& Young, architects; A. A. Artley, general contractor. (Referred to April 18.)

Seguin, Texas.—City Hall.—City will have plans prepared for erection of city hall, the bond issue of \$6000, referred to January 17, having been voted affirmatively. Address The Mayor.

Sherman, Texas.—High-school Building.—City has voted affirmatively the issuance of \$27,000 of bonds for rebuilding high-school building. Address The Mayor. (Referred to April 4.)

Spartanburg, S. C.—Church.—Bethel Methodist Church has awarded contract at \$15,000 to W. L. Hicks, Greenville, S. C., for erection of brick edifice. (Referred to April 11.)

St. Louis, Mo.—Apartment-houses.—Paul Newman will erect two double-flat buildings.

St. Louis, Mo.—Administration and Office Building.—Anheuser-Busch Brewing Association is having plans prepared by Fidmann, Walsh & Boisselier for erection of two or three-story administration and office building on site 125x200 feet; Edward A. Faust, second vice-president.

St. Louis, Mo.—Asylum Buildings.—Board of Public Improvements has had plans prepared by Milliken & Wray for additions to the Insane Asylum to cost about \$800,000.

St. Louis, Mo.—Apartment Building.—Gilbert C. Goodlet, 1005 Chestnut street, will erect apartment-house after plans by E. Ross Chamblin, 1014 Holland Building. At present south wing only will be erected, this consisting of 18 apartments and basement, with boiler-rooms and laundry underneath same; total cost of completed building estimated at \$165,000; complete building to have 40 apartments or 222 rooms; three stories and basement; fireproof; vacuum steam-heating system; electric lighting; refrigerators and vacuum cleaning system are being considered.

St. Louis, Mo.—Residence.—R. Meyer will erect residence at cost of \$11,500; size 52x31 feet; hot-water heating and electric lighting. Plans are being prepared by Foell Architectural Co., 3349 California avenue, who are also contractors for the building.

St. Matthews, S. C.—Residence.—D. G. Ziegler, Columbia, S. C., is preparing plans for residence for Dr. J. K. Fairley; estimated cost \$5000.

Surry, Va.—Courthouse.—Harwood & Moss, Newport News, Va., have contract at \$11,687 for erection of courthouse for Surry county after plans by G. R. Berryman, Jr., Washington, D. C.; two stories; concrete and red brick with white trimmings; colonial design; courtroom 33x47 feet. (Referred to March 21.)

Taylor, Texas.—Warehouse.—Farmers' Unions of Precinct No. 6 of Williamson county will incorporate company to build \$5000 cotton warehouse; J. N. B. Williams, president.

Tempe, Texas.—Bank Building.—First National Bank has not yet awarded contract for bank building, for which Sanguinet & Staats are preparing plans. Building may be colonial, two stories, 30x70 feet, fireproof, with hot-water heating, gas and electric lighting; probable cost about \$30,000, including furnishings, vaults, etc. (Mentioned recently.)

Tempe, Texas.—Hospital.—Gulf, Colorado & Santa Fe Railway will erect fireproof hospital building costing \$80,000, and have let contract for same to H. D. McCoy, Cleburne, Texas.

Thomasville, Ga.—Stable.—F. C. Loveless, manager of the plantation of Col. Oliver Hazard Payne, New York, N. Y., is preparing to erect modern stable after plans by Alexander Blair, Macon, Ga.; cost \$30,000.

Tifton, Ga.—Building.—S. M. Clyatt has awarded contract to T. E. Amazon for building; five stories with basement; electric passenger elevator.

Timpson, Texas.—Bank Building.—Bids will be received on a stone front and brick bank building for the Cotton Belt Bank, Temple D. Smith, president. Plans and specifications can be seen at Timpson and office of architect, Alfred Giles, San Antonio, Texas. Bids will be opened at office of bank May 8; usual rights reserved.

Tyler, Texas.—School Building.—School Board has awarded contract to Barron & Barron at \$11,602.50 for erection of Third ward school building; John Barron will undertake the brickwork and W. H. Barron the woodwork; structure will be steam heated and equipped with sanitary sewerage.

Verona, N. C.—Union Depot.—Durham & Southern Railway and the Raleigh & Southport Railway are reported to erect union depot; W. Hale, Durham, N. C., general superintendent of the former company, and J. Respass, Fayetteville, N. C., chief engineer of the latter.

Washington, Ga.—Cotton Warehouses.—Wilkes County Cotton Association proposes to organize corporation with capital stock of \$100,000 to build cotton warehouses.

Washington, D. C.—Apartment-houses.—Harry Wardman, builder, 1333 G street N. W., will erect three apartment-houses at 1761-1765 Columbia road N. W.; three stories, 40x70 feet; brick with stone trimmings; slag roof; steam-heating system; sanitary plumbing; lighting fixtures; cost \$45,000; A. H. Beers, architect, 1333 G street N. W.

Washington, D. C.—Apartment-house.—H. B. Wagner, 1815 F street N. W., recently reported to erect apartment-house at 1814 G street N. W., will build the structure himself, taking sublots for various parts of the work; three stories, 33x71 feet; brick with brownstone trimmings; electric wiring and fixtures; sanitary plumbing; hot-water heating system; cost \$15,000; B. F. Meyers, architect, Bond Building, 14th street and New York avenue N. W.

Washington, D. C.—Bank and Office Building.—American National Bank, 1315-1317 F street N. W., awarded contract to Richardson & Burgess, Colorado Building, 14th and G streets, for remodeling its office building and erecting ornamental dome on top; B. Stanley Simmons, architect, 831 F street N. W.

Washington, D. C.—Church Building.—Grace Baptist Church, F. W. Johnson, pastor, 508 East Capitol street, awarded contract to W. A. Kimmel, 1516 Columbia road N. W., for remodeling main church building and erection of addition in rear at 9th and D streets and South Carolina avenue S. E.; addition to be one story, 60x85 feet; brick with stone trimmings; slag roof; electric wiring and fixtures; cost \$16,000; Frank H. Jackson, architect, 1419 G street N. W.

Washington, D. C.—Dwelling.—Henry Kirke Porter, Pittsburg, Pa., awarded contract to John S. Larcombe, 808 17th street N. W., for remodeling dwelling at southwest corner 16th and I streets N. W. Electric wiring and fixtures, sanitary plumbing and heating system will be installed; Hornblower & Marshall, architects, 1516 H street N. W.

Washington, D. C.—Dwelling.—Charles B. Bailey, 1424 Belmont avenue, awarded contract to W. L. Turner, 41 Q street N. W., for construction of two-story brick and stone dwelling at 1125 20th street N. W. to cost \$5000; Hill & Kendall, architects, Corcoran Building, 15th and F streets N. W.

Washington, D. C.—Dwelling.—John J. Hemphill, Washington Loan & Trust Building, 902 F street N. W., awarded contract to C. A. Langley, 310 12th street N. W., for alterations and addition to three-story dwelling at 2210 Bancroft place to cost about \$5000; L. W. Norris, architect, 808 17th street N. W.

Washington, D. C.—Dwelling.—Frederick B. Elschelberger, Washington Loan & Trust Co., 9th and F streets N. W., awarded contract to John H. Nolan, 1413 G street N. W., for the construction of dwelling at 2122 Bancroft place; three stories and basement; brick with stone trimmings; tin roof; electric wiring and fixtures; sanitary plumbing; hot-air heating system; cost \$15,000; Arthur B. Heaton, architect, 1319 F street N. W.

Washington, D. C.—Dwelling.—Referring to alterations and addition to be made to dwelling at 1406 21st street N. W. for Frank B. Zahn, 1709 N street N. W., the following contractors are estimating: Piper & Kenyon, 729 15th street N. W.; W. E. Spelr Company, 1342 New York avenue N. W.; W. E. Mooney, 1425 New York avenue N. W.; Boryer & Smith, 1204 C street N. W.; Burgess & Parsons, 627 F street N. W.; Wm. C. Morrison, 1415 Rhode Island avenue N. W.; bids to be in about May 10; Harding & Upman, architects, 729 15th street N. W.

Washington, D. C.—Dwellings.—Andrew W. Lukel, 1737 De Sales street N. W., awarded contract to R. F. Lukel, 1944 2d street N. W., for the construction of six two-story brick dwellings with hot-air heating systems at 23-33 R street N. E. to cost \$20,000.

Washington, D. C.—Dwellings.—J. M. Carmody, builder, 1413 G street N. W., will erect four two-story brick dwellings with hot-air heating systems at 312-318 G street N. E. to cost \$12,000; A. M. Poynton, architect, 511 French street N. W.

Washington, D. C.—Store and Office Building.—E. N. Richards, 1330 G street N. W., awarded contract to Thomas C. Henderson, Corcoran Building, 15th and F streets N. W., for the reconstruction of store and office building at 1332 G street N. W. Electric wiring and fixtures, sanitary plumbing and steam-heating system will be installed; Frederick B. Pyle, architect, 1003 F street N. W.

Washington, D. C.—United States Treasury Building.—Edwin Gilbert & Co., Philadelphia, Pa., have contract for reconstruction of east front of United States Treasury Building at cost of \$288,965; James Knox

Taylor, architect, United States Treasury Building.

Washington, D. C.—Y. M. C. A. Building.—Referring to remodeling old Y. M. C. A. building for Junior Y. M. C. A., following are estimating: Fissell & Wagner, Home Life Building, 15th and G streets N. W.; C. J. Cassidy Company, 523 13th street N. W.; Wm. E. Mooney, 1425 New York avenue N. W.; H. V. Sanford, 1321 G street N. W.; S. J. Prescott Company, 700 13th street N. W., and Boryer & Smith, 1204 C street N. W.; bids to be in May 1; Harding & Upman, architects, 729 15th street N. W.

Wheeling, W. Va.—Apartment-house.—Geo. J. Mathison is having plans prepared for erection of four-story flat building.

Wilmington, N. C.—Warehouse.—B. F. Hall has let contract to Joseph Schari for brick business building mentioned April 25; architects, Lettner & Wilkins; building will be three stories, 80x125 feet; electric lighting; electric elevator; cost \$23,000.

Winfield, La.—Hotel.—Contract has been awarded for erection of hotel; three stories, 150x68 feet; brick; water, sewerage and baths; cost \$50,000. William McIntosh, New Orleans, La., will superintend construction of building.

Wise, Va.—School Building.—Wise School District of Wise county has voted affirmatively the issuance of \$20,000 of bonds for erection of school building. Address The County Commissioners.

Woodville, Miss.—Church.—M. E. Church, South, has decided to build edifice; plans not yet selected. As proposed, building will be of brick or concrete, with seating capacity of 300 in main auditorium and 150 in Sunday-school room; hot-air heating; electric lighting; cost approximately \$8000. Address W. L. Linfield, pastor.

RAILROAD CONSTRUCTION.

Railways.

Anderson, S. C.—E. W. Robertson of Columbia, S. C., president of the Anderson Traction Co., is reported as saying that as soon as the line to Belton is in operation he will begin active work on the extension to Greenville, S. C.

Avondale, W. Va.—The Avondale & Hacker's Valley Railroad Co. has been chartered to build a line from Avondale, on the Baltimore & Ohio Railroad, to a point in Hacker's valley, Webster county. The incorporators are R. M. Calmes, J. M. Lewis, William Rexroad, A. B. Bean and H. H. Lewis, Jr., all of Newtonton, W. Va.

Bartow, Fla.—Joseph David, promoter of the Peninsular Railway, is reported as saying that the company is ready to receive bids for grading from Bartow to Mulberry, Fla. The survey has been completed as far as Tampa, and the engineers are now at work between Tampa and Thonotosassa, from which point a branch line eight miles long is to be constructed.

Carrizo Springs, Texas.—George B. Jenkinson, promoter of the South Texas & Gulf Railroad Co., is reported as saying that a new survey has been made from Carrizo Springs to a connection with the International & Great Northern Railroad a mile and a quarter north of Artesia, Texas, instead of to that town. His address is New York city and also at San Antonio, Texas.

Chattanooga, Tenn.—George H. Cushman has completed survey from Chattanooga to Chickamauga Park for the Tennessee-Georgia Interurban Railway, and S. W. Divine, promoter, is reported as saying that construction will shortly begin.

Denison, Texas.—Bids are being received until May 18 for 20 miles of the Denison, Bonham & New Orleans Railroad extension from Ravenna, Texas, east to a point at or near Bois d'Arc creek. J. T. Munson is president of the Southern Railway Construction Co. at Denison, Texas, and E. D. Steger of Bonham, Texas, is president of the railroad.

Elkin, N. C.—Mr. H. G. Chatham, president, writes to the Manufacturers' Record that the Elkin & Alleghany Railway Co. was chartered in February by the Legislature to build about 80 miles of line from Elkin to Troutdale, on the Norfolk & Western Railroad in Grayson county, Virginia. The line may extend south to Statesville, N. C., or to Winston-Salem, N. C. It will cross the Blue Ridge at Roaring Gap. The other officers are: Vice-presidents, J. Clinton Smoot, Alexandria, Va.; H. E. Fries, Winston-Salem, N. C.; and Lieut.-Gov. R. A. Doughton of Sparta, N. C.; secretary-treasurer, A. G. Click of Elkin, N. C.; chief engineer, Col. O. H. P. Cornell of Winston-Salem, N. C. Grading is expected to begin about June 15.

Elliston, Va.—Mr. George E. Davis of George E. Davis & Co., lumber manufacturers, Bristol, Va.-Tenn., informs the Manu-

facturers' Record that he has purchased over 5000 acres of timber lands near Elliston, Va. Mr. Robert Gray, civil engineer, of Bristol, will have charge of the tramroad construction.

El Reno, O. T.—The El Reno, Oklahoma City & Shawnee Railroad Co. has been chartered to build an electric line from El Reno via Oklahoma City to Shawnee, O. T., with a branch to Norman; capital \$2,500,000; headquarters at Oklahoma City, Chicago and New York. The incorporators are G. N. Martin of Chicago, S. P. McIntyre of New York and Elmer E. Houghton, Nick M. Ellis and John H. Wright of Oklahoma City. Mr. Martin, representing a Chicago syndicate, is reported to have put engineers in the field for the survey from Oklahoma City to Shawnee.

Fitzgerald, Ga.—Mr. H. C. McFadden, president and general manager of the Broxton, Hazlehurst & Savannah Railroad Co., writes the Manufacturers' Record that the company has purchased the Ocilla & Valdosta Railroad from Broxton to Ocilla, with a branch to Fitzgerald, but he says that extensions are not now being considered.

Fort Worth, Texas.—Concerning the proposed belt line of the Chicago, Rock Island & Gulf Railway, the Manufacturers' Record is officially informed that nothing but the preliminary location is decided upon, but the line will probably be built this year. C. M. Case is chief engineer.

Fort Worth, Texas.—The Manufacturers' Record is officially informed that the St. Louis Southwestern Railroad is considering the building of terminals at Fort Worth, Texas, but definite information concerning the plans is not now available. This confirms a previous report.

Franklin, N. C.—The Carolina-Tennessee Southern Railroad Co. has filed a mortgage to secure \$2,500,000 of bonds for the construction from the North Carolina boundary in Swain county along the valley of the Little Tennessee river to a point near Franklin. W. H. Wells, engineer of construction of the Southern Railway at Washington, D. C., can probably give information.

Gadsden, Ala.—The Sand Mountain Electric Co. has been organized, and besides furnishing electric power, proposes to build and operate a railroad by either steam or electricity from Gadsden via Alabama City, Attalla, Boaz and Albertville to Scottsboro, Ala.; capital \$50,000. The incorporators are Edgar O. McCord, Rena B. McCord, Leon C. McCord, G. M. E. Mann, W. E. Snead, J. B. Roberts and the Albertville Realty Co. President E. O. McCord, Albertville, Ala., writes the Manufacturers' Record that the company has been incorporated. Mr. Mann is secretary. Letters should be addressed to the president.

Gallatin, Mo.—C. F. Alt of Warren, Pa., is reported to be working on a plan to build a railway about 40 miles long from a point near Gallatin to Excelsior Springs. A partial survey has been made.

Hawkinsville, Ga.—Reported that plans are under way looking to a consolidation of the Hawkinsville & Florida Southern Railroad and the Flint River & Gulf Railway, also to build a connecting link. J. S. Betz, president of the Flint River & Gulf at Ashburn, Ga., may be able to give information, or Bird M. Robinson, president of the Hawkinsville & Florida Southern Railway, Hanover Bank Building, New York.

Jackson, Miss.—Reported that survey is being made for an extension of the Liberty-White Railroad under the name of the Birmingham & Baton Rouge Railroad Co. J. T. Burke is chief engineer of the Liberty-White at McComb, Miss.

Keyser, W. Va.—Reported that the survey which is being made from Keyser southward, supposedly toward Harrisonburg, Va., is for the proposed Hampshire Southern Railroad, chartered by John T. McGraw of Grafton, W. Va. and others.

Leslie, Ark.—Reported that bids will soon be received for building the extension of the Missouri & North Arkansas Railroad from the Iron Mountain Crossing to Helena, Ark. S. W. Lee is chief engineer at Eureka Springs, Ark.

Little Rock, Ark.—Announcement is reported that construction of the new yards for the Rock Island system will begin within two weeks. This will include about 24,000 feet of tracks and the grading is expected to cost about \$125,000. J. B. Berry is chief engineer at Chicago, Ill.

Macon, Ga.—The Macon, Americus & Albany Electric Railway Co. has permanently organized by electing the following officers: Joseph S. Davis, president; W. J. Kincaid, first vice-president; John T. Moore, second vice-president; N. J. Cruger, secretary; W. J. Massee, treasurer; Stuart C. Davis, as-

sistant secretary and treasurer, and M. Felton Hatcher, general counsel.

Macon, Ga.—The Macon, Americus & Albany Electric Railway Co. has organized under its charter by electing officers as follows: President, Joseph S. Davis; vice-president, W. J. Kincaid; second vice-president, John T. Moore; secretary, N. J. Cruger; treasurer, W. J. Massee; assistant secretary and treasurer, Stuart Davis; general counsel, M. Felton Hatcher.

Mangum, O. T.—The Colorado Construction Co. of Mangum has the contract for building the Colorado, Texas & Mexico Railway from Mangum, O. T., to Abilene, Texas, 200 miles; also the Hollis branch, 40 miles; the Vernon branch, 25 miles, and the Merkel branch, 20 miles, on which main line work is reported begun. The entire line projected is from a connection with the Canadian Pacific Railway southward through North and South Dakota, Nebraska, Kansas, Oklahoma and Texas into Mexico; Morris R. Locke, president and general manager; W. E. Oliver, vice-president; H. M. Ferguson, secretary and treasurer.

Ocilla, Ga.—Construction is reported begun to build the Ocilla & Valdosta Railroad from Ocilla via Allapaha and Nashville to Valdosta, Ga. J. A. J. Henderson is president.

Onancock, Va.—C. C. Long, chief engineer, is reported as saying that survey has been made for the Accomac Traction & Power Co.'s line from Onancock via Tasley to Accomac, five and one-half miles. Spencer F. Rogers of Finney, Va., is president. Contracts for construction are to be let.

Pensacola, Fla.—Announcement is reported that the Pensacola, Alabama & Tennessee Railroad, now about 30 miles long, is to be extended to Mobile, Ala. Henry McLaughlin, president, is reported as saying that the plan has been financed.

Pineville, W. Va.—An officer of the Chesapeake & Ohio Railway writes the Manufacturers' Record that the extension of the Raleigh & Southwestern Railway under construction is six miles long from the present terminus at the mouth of Soak creek, in Raleigh county, West Virginia, up that stream and over into the valley of Winding Gulf creek. Johnson & Briggs of Richmond, Va., have the grading contract.

Quitman, Ark.—Reported that an organization has been formed to build an interurban electric railway from Quitman to Conway, Ark. R. L. Kane is president and W. T. Hammock secretary.

Roanoke, Va.—The Manufacturers' Record is informed that the contract for the Stony Creek extension of the Norfolk & Western Railway, which is to be started immediately, have been awarded to the following contractors: H. H. George of Lynchburg, Va.; J. J. Boxley & Son, Roanoke, Va.; Nave, Ryan & Curtis, Portsmouth, Ohio, and the Vaughan Construction Co., Roanoke, Va. The work is to be pushed.

Robert Lee, Texas.—J. A. Spencer and W. B. Smith of San Angelo, Texas, are reported to be promoting plans for a railroad from Robert Lee to Fort Chadbourne. Incorporation articles are being prepared.

Rockwell, Fla.—The Standard & Hernando Railroad Co. has amended its charter to increase the capital stock from \$200,000 to \$500,000, and the Port Inglis Terminal Co. has amended its charter to increase the capital from \$1,000,000 to \$2,000,000. John L. Inglis is president of the first and vice-president of the second company, and Ralph Barker is secretary of both.

Springfield, Mo.—The Springfield & Southwestern Railway (Missouri Pacific) from Springfield to Crane, Mo., 33 miles, has been opened for business.

Statesville, N. C.—The Statesville Air Line Railroad Co. has it is reported, been voted aid in bonds as follows: Iredell county, \$130,000; Yadkin county, \$160,000. Olin is to vote on May 11 on \$25,000.

Stephenville, Texas.—McKay Johnstone is chief engineer of the Stephenville North & South Texas Railway under construction from Stephenville to Hamilton, Texas, 45 miles. L. M. McArthur is division engineer at Carlton, Texas, and Read & Montgomery of Stephenville are contractors.

St. Louis, Mo.—The St. Louis, Terre Haute & Quincy Traction Co. has been incorporated in Illinois to build a line from Terre Haute, Ind., to Quincy, Ill., and St. Louis, Mo. The incorporators and directors are Edward Yates, Pittsburg; Peter Chase, Decatur, Ill.; H. T. Willson, Virden, Ill.; H. C. Simons, Virden, Ill., and E. E. Barclay, Springfield, Ill.

St. Louis, Mo.—The Terminal Railroad Association of St. Louis is expected to shortly authorize the construction of additional

team tracks and yards. Other necessary work, it is said, will raise the total amount which must be spent to \$10,000,000. W. S. McChesney, Jr., is president and general manager.

St. Louis, Mo.—Stuyvesant Fish, a member of the board, is reported as saying that the Iron Mountain (Missouri Pacific) line from St. Louis to Texarkana requires double-tracking to handle the heavy volume of traffic, and this will be done when financial conditions are easier. It is proposed to expend about \$100,000,000 on the system. E. F. Mitchell is engineer of construction at St. Louis.

St. Louis, Mo.—The West End Terminal Railway Co. has been organized with \$5,000,000 capital to build two bridges, a belt line and a terminal system in St. Louis and East St. Louis. J. M. Denning is president, Des Moines, Iowa; W. J. Kennedy, vice-president, St. Louis, Mo.; J. H. Hamilton, secretary and treasurer, also of St. Louis.

Tateville, Ky.—Construction is reported begun on the Cumberland River & Nashville Railroad between Tateville and Monticello, 20 miles.

Texhoma, O. T.—The Denver & Gulf Railroad Co. has been incorporated with \$2,000,000 capital stock to build a line 500 miles long from a point at or near Denver, Col., to Snyder, O. T. Construction is under way in both directions from Texhoma. The incorporators are Frank Banks of Sweetwater, Texas; William E. Wilson of Prentiss, Robert E. Davis of Granite, William R. Evans, James Hicks and Calvin Glenn of Texhoma, O. T.

Thomasville, Ga.—President J. L. Phillips of J. L. Phillips & Co., lumber manufacturers, writes the Manufacturers' Record that the firm will build a railroad south from Thomasville into timber land recently purchased. It will be 25 miles long.

Thomasville, Ga.—President W. C. Snodgrass of the Thomasville & Mexican Gulf Railroad is reported as saying that construction may begin within a month.

Tyler, Texas.—Reported that a company has been organized to secure rights of way for a railroad between Tyler and Canton, Texas, and to induce some railroad company to build a line. Surveys are to be made. The company has been incorporated and the officers are D. B. Cain, president; John Durst, vice-president; W. Frank Knox, secretary and treasurer, who, with the following, compose the board of directors: L. L. Jester, R. Bergfeld and Gus F. Taylor, all of Tyler.

Weatherford, Texas.—The Weatherford Mineral Wells & Northwestern Railway is reported to have graded 21 miles of its extension, and tracklaying is to begin immediately.

Wetmore, Tenn.—Mr. C. B. Benedict, vice-president of the Syco Lumber Co., Nashville, Tenn., informs the Manufacturers' Record that a branch railroad about 10 miles long will be built from the company's mill on the Louisville & Nashville Railroad, in Polk county, into timber lands recently acquired.

Street Railways.

Atlanta, Ga.—A charter has been granted to the Georgia Electric Railroad Co., which is to build an extension of the Georgia Railway & Electric Co.'s line from Brookwood to Buckhead.

El Paso, Texas.—The El Paso Suburban Railway Co., capital \$10,000, has been incorporated by Frank R. Tobin, John D. Tobin and Windham Camp.

Gainesville, Texas.—The Gainesville Electric Railway & Light Co. has changed its name to the Gainesville Traction Co.

Jackson, Miss.—The Jackson Street Railway & Power Co. proposes to build two extensions, one of which at least it is to be started this summer.

Oklahoma City, O. T.—The Oklahoma Street Railway Co. has applied for a new franchise in Capitol Hill. John W. Shartel is vice-president and general manager.

Thomasville, Ga.—W. C. Snodgrass and others are reported to be promoting plans to build a street railway in Thomasville.

Wheeling, W. Va.—The Rapid Transit Railroad Co., which proposes to build a line from Wheeling to Elm Grove, will apply for a franchise in the city and county. Albert M. Schenk is president.

General Electric in San Francisco.

The San Francisco office of the General Electric Co. of Schenectady, N. Y., is now permanently located in the Union Trust Building. Since the fire the office has been located in the Union Savings Bank Building at Oakland, Cal., large temporary warehouses having also been erected in the same city.

MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Bag Machines.—Charlotte Bag Co., 22 East 5th street, Charlotte, N. C., wants bag machines.

Barrels.—See "Cider Press."

Boiler.—W. M. Lyles, Sparta, Tenn., wants boiler for shingle mill.

Boiler.—Witte Iron Works Co., Kansas City, Mo., Ed H. Witte, president, wants boiler for heating.

Boiler.—A. K. Goodnight, Kempton, Ind., wants second-hand 125-horse-power boiler and boiler feed; boiler to carry 100 pounds steam.

Boiler.—W. P. Jackson, Salisbury, Md., wants boiler, 500 or 600 horse-power, to carry working pressure of 125 pounds steam; fuel to be used, shavings and sawdust from planing mill.

Boilers.—City of Vienna, Ga., will need boilers. Address B. F. Forbes, Mayor.

Boilers.—Caddo Oil & Gas Development Co., Caddo, I. T., wants prices on boilers.

Bridge Builders.—F. Vernon Aler, Martinsburg, W. Va., wants to correspond with bridge builders.

Button (Shell) Machinery.—Baddour Bros., Lebanon, Tenn., want machinery for making shell buttons.

Canning Machinery.—A. L. Womack & Co., Bristol, Tenn., wants canning machinery.

Cider Press.—Covesville Cider Co., Covesville, Va., wants cider press of 100 barrels capacity. Address J. J. Boaz, secretary.

Coal-handling Equipment.—Henry Bower Chemical Manufacturing Co., 1348 Block street, Baltimore, Md., wants to confer relative to buying coal-handling machinery and building coal pocket; daily capacity to be 200 tons from scows to pocket. Detailed information is wanted.

Concrete Building Block.—E. F. Stephenson, 250 Vance avenue, Memphis, Tenn., wants machinery for making concrete building block, cement brick and roofing tile.

Concrete Mixer.—E. F. Stephenson, 250 Vance avenue, Memphis, Tenn., wants concrete mixer.

Concrete Mixer.—C. R. Willard & Son, Spartanburg, S. C., want concrete mixer.

Contractors' Outfits.—C. R. Willard & Son, Spartanburg, S. C., in the market for stone crusher, concrete mixer, steam drills and other small machinery.

Conveying Machinery.—S. M. Bonnell, Whitehouse Station, N. J., wants information on machinery for handling sand from pit to cars and boats.

Conveying Machinery.—See "Coal-handling Equipment."

Cotton Machinery.—Russell Manufacturing Co., Alexander City, Ala., is inviting bids on cost of machinery for spinning 1000 pounds of 24s yarns daily.

Creosoting Plant.—Wadesboro Electrical Manufacturing Co., Wadesboro, N. C., wants a plant for creosoting insulator pins, cross-arms, etc. Address John W. Gullledge.

Crusher.—C. R. Willard & Son, Spartanburg, S. C., want stone crusher.

Drainage.—See "Water-works."

Drill.—Eastern Star Mining Co., Perry, O. T., wants well drill for testing ore lands.

Drilling Equipment.—Caddo Oil & Gas Development Co., Caddo, I. T., wants drilling equipment.

Drills.—C. R. Willard & Son, Spartanburg, S. C., want steam drills.

Electric Equipment.—Witte Iron Works Co., Kansas City, Mo., wants dynamos for gas-engine shop. Address Ed H. Witte, president.

Electric Motor.—Piedmont Lumber Corporation, Charlottesville, Va., wants electric motor; C. R. Randolph, general manager.

Electric Plant.—See "Water-power Development."

Electrical Machinery.—City of Vienna, Ga., will need electrical machinery. Address B. F. Forbes, Mayor.

Elevator.—C. Culpepper, Wilson, N. C., wants elevator, capacity 1500 pounds.

Elevators.—Charles McMillen, Box 17, Wilmington, N. C., wants two alternating-current, 60-cycle, three-phase electric elevators.

Electric-light Equipment.—City of Terrell, Texas, is in the market for electric-light equipment. W. P. Allen, Mayor pro tem., may be addressed.

Engine.—Gem Cotton Mill, Burlington, N. C., wants second-hand Corliss engine.

Engine.—Lancaster Cotton Oil Co., Lancaster, S. C., invites correspondence relative to choice of either Corliss or gas-producer engine for oil mill.

Engine.—A. K. Goodnight, Kempton, Ind., wants second-hand 100-horse-power engine.

Engine and Boiler.—W. M. Nichols, Aulander, N. C., wants engine and boiler.

Engine and Boiler.—Bacon Equipment Co., Albany, Ga., in the market for a second-hand engine and boiler mounted on wheels; six or eight horse-power.

Engine and Boiler.—Covesville Cider Co., Covesville, Va., wants 10 to 12-horse-power engine and boiler. Address J. J. Boaz, secretary.

Fuel-preparing Equipment.—Petersburg Rim & Veneer Co., Petersburg, Va., wants machinery to reduce half-rounds from barrel and keg headings and outskids to consistency of chips or shavings so as to be used for firing boilers.

Handle Machinery.—Bay Springs Spoke & Manufacturing Co., Bay Springs, Miss., wants machines for making handles for hatchets, hammers, axes, etc.

Heating.—Sealed proposals will be received at Treasury Department, office of James Knox Taylor, supervising architect, Washington, D. C., until May 21 for low-pressure steam-heating apparatus for U. S. postoffice and courthouse building at Paris, Texas, in accordance with drawings and specifications, copies of which may be had at this office or at office of custodian, Paris, at the discretion of supervising architect.

Hog (so called).—See "Fuel-preparing Machinery."

Hoisting Engine.—T. A. Lindsey, Commerce, Texas, wants hoisting engine with cables and fixtures for construction work.

Hydraulic Machinery.—W. H. Dunn, 211 East Broad street, Richmond, Va., wants information as to best method of moving, screening and grading bank gravel by using stream of water.

Iron Castings.—Baltimore (Md.) Board of Awards, City Hall, will receive bids until May 8 for furnishing a quantity of manhole frame castings for the Electrical Commission. Specifications can be obtained from Charles E. Phelps, chief engineer.

Iron Fencing.—Savannah Woodenware Co., Savannah, Ga., wants addresses of manufacturers of iron fence railing, shipments to be made by water, as Savannah is a port.

Keyseater.—Peacock's Iron Works, Selma, Ala., is in the market for a belt-power stationary keyseating machine.

Laundry Machinery.—G. L. Broderick, Fort Meade, Fla., wants steam-laundry machinery.

Lighting Fixtures.—Sealed proposals will be received at office of building committee, United States Department of Agriculture, Washington, D. C., until May 24 for furnishing lighting fixtures for two laboratory buildings, United States Department of Agriculture, Washington, D. C., in accordance with specifications, copies of which may be obtained at above office of building committee, B. T. Galloway, chairman.

Logging Equipment.—Craggy Lumber Co., Swannanoa, N. C., wants second-hand McGifford log loader.

Machine-shop Equipment.—Witte Iron Works Co., Kansas City, Mo., wants machinery for gas-engine shop. Address Ed H. Witte, president.

Machine-shop Operators.—See "Water Elevators."

Machine Tools.—See "Keyseater."

Mechanical Equipment and Supplies.—Sealed proposals will be received at office of D. W. Ross, General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until May 17 for furnishing shop machines, steam pump, steel, copper and brass tubing, steel roofing, pneumatic tools and hoists, jacks, sanitary fixtures, cocks, lead pipe and discs, forges, trucks, machine bits, saws, etc. Blanks and general information relating to Circular No. 363 may be obtained from this office or the offices of the assistant purchasing agents, 24 State street New York; Custom-house, New Orleans; 1056 North Point street, San Francisco; 410

Chamber of Commerce Building, Tacoma; also from Chief Quartermaster, Chicago; Depot Quartermaster, St. Louis; Depot Quartermaster, Jeffersonville, Ind., and Chief Quartermaster, Atlanta, Ga.

Mixing Machinery.—Putnam Fertilizer Co., Cookeville, Tenn., wants machinery for dry mixing of fertilizer materials; C. H. Whitney, general manager.

Paving.—Sealed proposals in duplicate will be received by R. S. Williams, City Treasurer, Montgomery, Ala., until May 20 for paving sidewalks with hexagon blocks or Schillinger pavement and for all necessary granite curbing and storm-water sewers in connection therewith on portions of Hamner and Holt streets and Finley and Highland avenues; all work to be done in accordance with plans and specifications in City Engineer's office; certified check for \$250 to accompany each bid; usual rights reserved.

Paving.—Sealed proposals will be received by W. E. Smith, City Engineer, Webb City, Mo., until May 20 for the following street improvements: 1600 lineal feet of stone curbing, 18,174 square feet of cement sidewalk, 422 square yards of grading and graveling, 8066 square yards of macadam and 4814 square yards of brick pavement, estimated to cost \$21,544. Certified checks totaling \$350 will be required with each bid; usual rights reserved. General instructions for bidders, etc., may be obtained at office of City Engineer.

Paving.—Sealed proposals will be received by Board of Affairs, Parkersburg, W. Va., until May 9 for paving portion of Juliana street with sheet or block asphalt with five or ten-year guarantee, and for combined curb and gutter of concrete, with steel-bound concrete circular curbs, where shown upon specifications. Full information furnished on application at office of City Engineer at Parkersburg. Certified check for \$1000 payable to city of Parkersburg must accompany each bid; usual rights reserved; Frank Good, Auditor.

Paving.—Sealed proposals will be received by Board of Public Affairs, Fort Smith, Ark., at office of Mayor, until May 6 for constructing about 6550 square feet of concrete sidewalks around City Park and about 1537 square feet of concrete sidewalk around Mary Barnes Park; specifications on file in office of City Engineer, who will supervise work; usual rights reserved. Fagan Bourland, chairman, and Henry Kuper, Jr., secretary of board.

Paving.—Sealed bids will be received by L. Z. Dorsett, Mayor, until May 6 for laying 13,019 square feet of sidewalk, 1065 lineal feet of curbing 6x18 inches, 462 lineal feet of curbing 6x30 inches and 330 lineal feet of granite crosswalks 6x24 inches; material of sidewalk and curbing to be of concrete or hard brick and granite curbing; contractor to do all necessary grading; usual rights reserved; plans and specifications on file at office of Mayor.

Pipe and Fittings.—City of Newbern, Tenn., will need 50 to 65 tons of three-inch and 10 tons of four-inch cast-iron water pipe and 17 street hydrants. Address H. J. Swindler, Mayor.

Pipecutting Machinery.—Battery Machinery Co., Rome, Ga., in the market for a good second-hand pipe machine cutting from 4 to 12 inches; if cannot find this size, will take from 6 to 12-inch; must be in first-class condition.

Pipefittings.—C. P. Daniel's Sons, Waynesboro, Ga., want pipefittings for hanging awnings.

Plumbing.—Treasury Department, office of James Knox Taylor, supervising architect, Washington, D. C. Sealed proposals will be received until May 16 for restoring duplicate gas and water-supply mains in subbasement corridor trenches at United States Treasury Building (removal of which was incident to preliminary work in connection with ventilating apparatus) in accordance with specifications, copies of which may be had at this office at discretion of supervising architect.

Printing Machine.—Charlotte Bag Co., 22 East 5th street, Charlotte, N. C., wants machine for printing on cotton and burlap bags.

Pumping Engine.—Sealed proposals will be received at office of Mayor of Muskogee, I. T., until May 6 for one high-duty steam pumping engine of 2,000,000 gallons daily capacity; specifications on file at offices of M. A. Earl & Co., engineers, Muskogee, and at Room 1106 First National Bank Building, Chicago, Ill.; usual rights reserved. T. H. Martin is Mayor.

Pumping Engine.—Builders of pumping engines are invited to appear before the Board of Water Commissioners May 4 to demonstrate what pumping engine they build will do the duty required in the direct-pumpage system, pressure varying from 120 to 160

pounds, daily capacity of 15,000,000 and 20,000,000 gallons; Board of Water Commissioners and special committee of City Council, Atlanta, Ga.

Pumps.—City of Vienna, Ga., will need pumps. Address the Mayor, B. F. Forbes.

Pumps.—J. H. Macleary, Suffolk, Va., is in the market for two centrifugal pumps, six to eight-inch suction. Name dealer's price.

Railway Equipment.—Joseph E. Bowen, Bank of Commerce Building, Norfolk, Va., in the market for a 36-inch-gauge eight or ten-ton locomotive (mine).*

Sawmill Carriage.—Colleton Mercantile & Manufacturing Co., Ritter, S. C., wants one second-hand 30 to 40-foot sawmill carriage with track, cable feed, latest dogging devices and set-up blocks, to be used in connection with steam log-turner; Paul Sanders, president.

Sewerage.—Commissioners of Improvement District 24, S. Meyer, secretary, Hot Springs, Ark., will receive bids until May 20 for installing and equipping sewer as shown by plans and specifications, copies of which can be seen at office of G. M. French, engineer, or R. P. Morrison, chairman of Board. Certified check for \$500, payable to said district, must accompany each bid.

Sewerage.—See "Water-works."

Sewerage.—Sealed bids for furnishing approximately six miles of sewer pipe in sizes of eight-inch, 10-inch and 12-inch and for the laying of same and construction of accessories will be received by Mayor and Board of Aldermen, Alexandria, La., until June 4; certified check payable to City Treasurer for \$1000 must accompany each bid; usual rights reserved. Ira W. Sylvester is City Engineer.

Screening Machinery.—W. H. Dunn, 211 East Broad street, Richmond, Va., wants screening machinery. (See "Hydraulic Machinery.")

Smokestack.—Penola Excelsior Co., Woodford, Va., wants new or second-hand smokestack 30 feet in length, 24 inches diameter, not less than 16 gauge.

Stave Machinery.—J. M. Ross, Somerset, Ky., wants one or two full dressing machines for beer staves, either new or good second-hand.

Tanks.—See "Drilling Equipment."

Tanks.—Covesville Cider Co., Covesville, Va., wants cider tanks. Address J. J. Boaz, secretary.

Tanks.—Diehl Supply Co., Jonesboro, Tenn., wants prices on cypress tanks, knocked down.

Telephone Equipment.—Appomattox Telephone Co., B. F. Oden, secretary, Appomattox, Va., wants to correspond with manufacturers of and dealers in telephone equipment.

Washing Plant.—Wanted—Bids on erection of four-log washer; plans and specifications at Ironaton; company to furnish all material. Address Alabama Consolidated Coal & Iron Co., Ironaton, Ala.

Water Elevators.—J. B. Nell, Filbert, S. C., wants to correspond relative to having a patented water elevator manufactured.

Water-power Development.—Sand Mountain Electric Co., Edgar O. McCord, president, Albertville, Ala., wants to engage engineers to make surveys for development of 500 to 1000 horse-power and transmission by electricity.

Waterproofing for Walls.—O. E. Wilkins, Yorkville, S. C., wants waterproofing preparation for concrete walls.

Water-works.—Date for awarding contracts for water-works, sewerage and surface drainage for Hartsville, S. C., has been postponed until May 15; referred to March 28. Charles C. Wilson, 1302 Main street, Columbia, S. C., can be addressed for plans and specifications.

Woodworking Machinery.—W. M. Nichols, Aulander, N. C., will probably want planing-mill and other woodworking machinery.

Woodworking Machinery.—The Dixie Company, Rose Hill, N. C., is in the market for edger or gang saw.

Woodworking Machinery.—See "Fuel-preparing Machinery."

Woodworking Machinery.—Wadesboro Electrical Manufacturing Co., Wadesboro, N. C., wants machinery for manufacturing telephone and electric-wire insulator pins, cross-arms, etc. Address John W. Gullledge.

Woodworking Machinery.—Piedmont Lumber Corporation, Charlottesville, Va., C. R. Randolph, general manager, wants surfacing machines, molding, band resaw and other mills.

An F. A. Clegg Contract.

Messrs. F. A. Clegg & Co. of Louisville, Ky., have been awarded the contract for the heating and ventilating system of the Duker-avenue school in their city.

MISCELLANEOUS WANTS NOT OTHERWISE CLASSIFIED.

Concrete Contractors.—H. N. Rummell, 107 North Robinson street, Oklahoma City, O. T., wants to correspond with contractors for concrete buildings.

Label Printers.—B. D. Snyder, Box 34, Hedgesville, W. Va., wants addresses of label printers.

Paper Boxes.—B. D. Snyder, Box 34, Hedgesville, W. Va., wants addresses of manufacturers of paper boxes for the drug trade.

Photographing Equipment.—Isidore Schnepf, 405 South Howard street, New Orleans, La., wants electrical photographing equipment.

Slot Machines.—Automatic Amusement and Vending Corporation, 1221 National Bank of Commerce Building, Norfolk, Va., needs slot machines.

INDUSTRIAL NEWS OF INTEREST

Overall Factory for Sale.

A complete equipment for manufacturing overalls is offered for sale. It comprises modern machinery and accessories that can be loaded on one car for shipment. For further details address I. X. L., care of the Manufacturers' Record.

New C. W. Raymond Plant.

It is announced that the C. W. Raymond Co. of Dayton, Ohio, has 10 acres of land and will erect large and commodious buildings. It will build a machine shop, foundry, fireproof pattern storage, wood department and office. Plans are now being prepared for this new modern plant for making brick machinery.

Hyde Bros. & Co.

Messrs. Hyde Bros. & Co. of Pittsburg, Pa., announce the opening of a branch office in the Washington Life Building, 141 Broadway, New York. They deal in rails, new and relaying, splices, bolts, spikes, track equipment and other similar construction materials. Their Pittsburg office is in the Commonwealth Building.

Virginia Farm and Mineral Lands.

Those who may be interested in the purchase of farm or mineral lands in the South are invited to address the Southern Land Corporation of Keyville, Va. This company offers some valuable farm properties and manganese and marble-bearing lands in Virginia. It is prepared to submit specific details to prospective purchasers.

Big Plumbing Contract.

An important and big contract for plumbing was awarded during the past week to a Southern firm. It comprises the order for the 200 bathrooms and plumbing fixtures generally for the New Hotel Grunewald at New Orleans. The contract was awarded to Messrs. Aschaffenburg & Co. of New Orleans, La., and involves about \$85,000.

Free Factory Site Offered.

Endeavors are being made to secure the establishment of industrial enterprises at Aulander, N. C. An inducement now offered is a free site of half an acre of land on the Atlantic Coast Line Railway to anyone who will locate a plant to cost at least \$5000. For information address A. J. Dunning, general manager the Dunning Company.

Mr. James Nisbet Hazlehurst.

Mr. James Nisbet Hazlehurst, late chief engineer to the Board of Public Works of Mobile, Ala., announces the establishment of an office for the practice of his profession in consulting capacity at No. 905 Candler Building, Atlanta, Ga. He is a member of American Society of Civil Engineers, American Society of Municipal Improvement, and American Water-Works Association.

Mr. J. W. Ludlow.

Mr. J. W. Ludlow, formerly with the Condon & Sinks board of reinforced concrete consulting engineers, has joined the engineering corps of the Unit Concrete Steel Co., offices at 42 Madison street, Chicago. He has had an unusual experience in the laying out and superintendence of reinforced concrete construction, and he will have a fruitful field in his new connection.

Purchasing Agent Seeks Position.

Managers of industrial enterprises who may be at present in need of a purchasing agent or an assistant to that office are invited to correspond with Irving Olmsted, 147 West 129th street, New York. Mr. Olmsted has had 17 years' experience, having been with the Robins Conveying Belt Co. and the J. E. Ogden Company of New York, the New Jersey & Pennsylvania Cone Works and Edison Portland Cement Co. of Orange, N. J.

Norton Company to Enlarge.

The Norton Company, Worcester, Mass., and Niagara Falls, N. Y., manufacturer of grinding wheels made of aluminum and other abrasive specialties, is to erect a large addition to its Worcester works. It will extend the building designated as Plant 2 about 200

feet in length by 111 feet in width, which will more than double the present capacity. This will be fully equipped with kilns, mixing machines, shaving machines, etc., so as to permit of a large increase in output.

A. D. Granger Company.

The A. D. Granger Company, contracting engineer, New York, announces the removal of its offices to Rooms 1518, 1519 and 1520 West Street Building, 90 West street, corner of Cedar street. This company has enlarged facilities in the new location for handling the products of the Skinner Engine Co., Erie, Pa.; Oswego (N. Y.) Boiler & Engine Co., Harrisburg (Pa.) Manufacturing & Boiler Co., Union Iron Works, Erie, Pa.; Bates Machine Co., Joliet, Ill., and Frost Manufacturing Co., Galesburg, Ill.

Ludlow-Saylor News.

When the Ludlow-Saylor Wire Co. moved its entire factory and office force into the building at Newstead avenue, St. Louis, Mo., a year or so ago it entered into an area of 200,000 square feet, which was considerable of an increase over the old quarters, which held only 54,000. Mr. C. L. Dean, vice-president and treasurer of the company, says that the new factory is none too large, as the company has recently experienced its most prosperous period, and there seems to be no indication of a cessation of orders.

Offering Factory Sites.

As soon as the Board of Trade of Nashville, Tenn., begins its proposed advertising campaign, now being planned, inducements will be available for the location of manufacturing enterprises. The organization has an offer from John D. Fletcher, one of its members, for the exchange of a large tract of land for stock in any company that will build a plant on the property. The Nashville & Columbia Interurban Railway is being asked to build its proposed power-house on the land and provide sufficient electricity to be able to sell power to local industries.

C. P. Young Engineering & Supply Co.

Among the incorporations of new industrial enterprises of importance in New Orleans during April was the C. P. Young Engineering & Supply Co. This company has a capital stock of \$100,000 and will engage in general mechanical and electrical engineering, manufacturing and furnishing mill and factory machinery and supplies, and otherwise furnishing and installing manufacturing plants and other industrial operations. It is proposed to secure contracts not only in Louisiana and other States, but also in the West Indies and Central and South America. Mr. C. P. Young is president, Geo. S. Dodds vice-president and R. Vandervort secretary; offices at 405 Camp street, New Orleans, La.

Demand for Steel Ceilings.

Just now there is a growing demand for steel ceilings. Builders and architects are recognizing their superiority over either wood or plaster, and their permanency is not doubted. Architects have sometimes objected to steel ceilings on the ground that the air passing between the joints of the plates causes dust and dirt to accumulate. This objectionable feature has been entirely overcome in the lock-joint metal ceiling. The lock joint has another advantage in that it is easily erected, making a positive saving in this direction. One would really be surprised how quickly a lock-joint ceiling can be erected. These lock-joint metal ceilings are manufactured by the S. Keighley Metal Ceiling & Manufacturing Co. of Pittsburg, Pa.

Downie Pump Co. News.

The Downie Pump Co. of Downieville, Pa., announces that it has transferred its entire pump business to the Keystone Driller Co. of Beaver Falls, Pa. This transfer included all outstanding accounts, contracts and correspondence in toto, and hereafter the business will be conducted in the name of the new owners. For some months to come (and until further notice) the business will be conducted at the old address (Downieville, Pa.). Former patrons are cordially commended to the new management, with the

confident assurance that it will faithfully carry out all obligations. The transfer was made by mutual consent, sale and purchase, and, the Downie Pump Co. believes, to the mutual advantage of all concerned.

Machinery Listed for Sale.

No buyer of machinery should fail to be acquainted with the stock constantly kept on hand ready for shipment by Messrs. Wickes Bros., machinery manufacturers and dealers. The firm's list is presented each month in a neat booklet for pocket use, containing brief specifications of boilers, engines, contractors' equipment, condensers, pumps, feed-water heaters, electric generators and motors, ventilating fans, exhaust fans, blowers, heating apparatus, metal-working machinery, cranes, hand wheels, flywheels, belting, piping, tanks, etc. List for April is now ready. Address Messrs. Wickes Bros. at 137 Liberty street, New York; 37 Farnsworth street, Boston; 605 Arch street, Philadelphia; 117 Fourth avenue, Pittsburg, and Saginaw, Mich.

Intercommunicating Telephones.

The value of intercommunicating telephones is being more and more appreciated every day. In connection with this it is timely to mention that G. F. Archer, the well-known economic engineer, states he is receiving many inquiries for the automatic intercommunicating telephone apparatus he installs. Many of the Archer installations have been made in the East, and owners of industrial plants of any character who may want to investigate them are invited to correspond now. Mr. Archer is a general consulting and constructing mechanical and electrical engineer, and invites inquiries from those who may think of installing economic systems of any description—water-powers, motors, dynamos, etc. His offices are at 59 Cortlandt street, New York.

The Graton & Knight Exhibit.

One of the interesting exhibits of a mechanical nature at the Jamestown Exposition will be that of the Graton & Knight Manufacturing Co. of Worcester, Mass. It will show the progress made in the art of manufacturing leather belts for the transmission of power. With more than 50 years' experience the company believes its position as a leader in this branch of industry will be fully shown by the Jamestown exhibit mentioned. The Graton & Knight exhibit will be in the Manufactures and Liberal Arts Building, Section 28, where people interested in modern belting are invited to call. The Graton & Knight Manufacturing Co. is one of the most widely known oak leather tanners and beltmakers, and has an exclusive plant for its purposes at Worcester, Mass.

Calumet Steel Co.

A recent announcement of interest is that the Calumet Steel Co. has been organized with a capital stock of \$275,000, offices at 622 Western Union Building, Chicago, Ill. The company has a mill in process of construction at Chicago Heights, where 15 acres of ground have been secured, and the plant will manufacture stiff Bessemer steel. It will make a specialty of manufacturing steel bars for reinforcing concrete. Mr. J. H. Porter, formerly secretary of Inland Steel Co., Chicago, and recently vice-president of Buffalo Steel Co., Tonawanda, N. Y., is president of Calumet Steel Co. Mr. A. S. Cook, recently secretary of Inland Steel Co., is vice-president and treasurer, and S. S. Porter, formerly secretary of Buffalo Steel Co., is vice-president of the new company. It is expected that the mill will be ready for operation within the next few months.

Contracts for Foster Superheaters.

Recent contracts secured by the Power Specialty Co., 111 Broadway, New York, for Foster superheaters include those from the following for installation in the various best-known types of water-tube boilers: West Virginia Pulp & Paper Co., Mechanicsville, N. Y., and Piedmont, W. Va., 5400 horse-power; Denver (Col.) Gas & Electric Co., 3000 horse-power; United States Naval Proving Ground, Indian Head, Md., 1000 horse-power; Virginia Passenger & Power Co., Richmond, Va., 1800 horse-power; Norfolk Navy-Yard, 1400 horse-power; Mineral Wells (Texas) electric system, 750 horse-power, and Newport News (Va.) Shipbuilding & Dry-Dock Co., 3000 horse-power. Foster superheaters will also be installed in some 9000 horse-power of water-tube boilers at the central heating and power plant in course of construction for the Capitol buildings at Washington. This is said to be the largest single order ever placed by the Government for boilers and superheaters.

Loucks Iron & Steel Co.

The original of the plant now operated by the Loucks Iron & Steel Co. of Roanoke, Va., was built in 1891-2 and put in operation in

February, 1892. It was overhauled and modernized in 1906-7, and now has 15 double puddling furnaces, one squeezer, one hammer, three straight-draft heating furnaces, one 12x35-foot continuous-heating furnace for heating rails, and three trains of rolls; one three-stand three-high 22-inch puddle mill, one 18-inch Belgian roughing and one five-stand 12-inch finishing. A 10-gross-ton open-hearth steel furnace with two gas producers was added in 1905. The products are muck bar, 27,000 tons; small T rails, 8 to 25 pounds per yard, and merchant bars, bands, 24,000 tons per year. Bituminous coal and producer gas is used for fuel. A machine shop is connected with the works, with a full line of machine tools. The officers of the company are: W. H. Fetter, president, Scottsdale, Pa.; D. S. Loucks, treasurer, Scottsdale; J. W. Grantham, secretary, Scottsdale; P. H. Mynahan, general manager, Roanoke, Va. The plant was formerly operated by the Iron Company of America. The Loucks Iron & Steel Co. acquired it in May, 1906.

Thermal Insulation.

"There are two essential features to be considered in the erection of cold-storage buildings. One is the machinery. All refrigerating apparatus is only a means of removing heat. A high degree of perfection has been reached, and there are many good and economical machines on the market, but unless they are assisted by good insulation they are of little value. It is acknowledged by all cold-storage men that 'good insulation is the best investment they can make.' It is estimated that 70 per cent. of the refrigeration applied is used to remove the heat that leaks through poorly-insulated walls. As this waste is continuous and expensive, it is of the utmost importance to use materials to reduce it to a minimum, so our attention is necessarily called to the subject. Insulation is the placing on the inner walls of a building a material, a non-conductor of sufficient efficiency to prevent the passage of heat and cold, thereby making it possible to maintain temperatures uniformly, regardless of the outside temperature. Boards, air spaces and paper in succeeding layers, and numerous fillers, as sawdust, planer shavings and mineral wool, have been used to maintain temperatures until insulation was discovered. Dead air space is acknowledged to be the best insulation obtainable, and that can only be got by dividing a given air space into millions of minute air spaces with an inexpensive yet durable material." The foregoing is an excerpt from a publication of the Union Fiber Co. of Winona, Minn.

Recent Fred W. Wolf Sales.

The Fred W. Wolf Company of Chicago, Ill., reports the following recent sales: R. E. Cobb, St. Paul, Minn., 50-ton refrigerating plant; Lethbridge (Canada) Brewing & Malt-Co., large order direct-expansion piping; Franz Bros. Brewery, Freeport, Ill., 75-ton refrigerating plant; Mineral Wells (Texas) Ice, Light & Power Railway Co., 30-ton ice plant; Wm. J. Moxley, Chicago, two cold-water tanks, coils, agitators, etc.; Obermeyer & Lieberman, Brooklyn, N. Y., 220-ton refrigerating plant; M. K. Goetz Brewing Co., St. Joseph, Mo., large order direct-expansion piping; A. M. Ramer Company, Winona, Minn., 40-ton refrigerating plant; Hortonville (Wis.) Brewing Co., six-ton refrigerating plant; Hervey Hotel Co., Mobile, Ala., 12-ton refrigerating plant; Schwenk-Barth Brewing Co., Yankton, S. D., 65-ton refrigerating plant; Carrollton (Ga.) Ice & Cold Storage Co., 12-ton machine; Stoneboro & Chautauque Lake Ice Co., Oil City, Pa., 50-ton refrigerating plant and 35-ton freezing system; Hygela Brewing Co., Passaic, N. J., 150-ton refrigerating plant and 40-ton freezing system; Artesia (N. M.) Ice & Light Co., 40-ton refrigerating plant; St. Tammany Ice & Manufacturing Co., Ltd., Covington, La., 30-ton ice plant; S. M. McKendree, Augusta, Ga., 25-ton ice plant; Yuma (Ariz.) Ice Co., 85-ton refrigerating plant, 50-ton freezing tank and 25-ton distilling system; Star Fish & Oyster Co., Mobile, Ala., 25-ton refrigerating plant and 10-ton freezing system; Fred Harvey, Kansas City, Mo., six-ton refrigerating plant; Comanche (Texas) Cotton Oil Co., 15-ton ice plant; Oscar Mayer & Bros., Chicago, 50-ton refrigerating plant; Austin Biscuit Co., Chelsea, Mass., 30-ton refrigerating plant; Simons Packing Co., Youngstown, Ohio, 30-ton refrigerating plant; Atlantic & Birmingham Construction Co., Atlanta, Ga., for Ogleshorpe Hotel, Brunswick, Ga., 12-ton refrigerating plant; Thompson Hotel Co., Lincoln, Neb., 20-ton refrigerating plant and six-ton freezing system; Peter Schoenhofen Brewing Co., Chicago, large order direct-expansion piping; Northern Brewing Co., Superior, Wis., large order direct-expansion piping; John Wishart Machine Works, Chicago, large order direct-expansion piping; Gottfried Brewing Co., Chicago, large order direct-expansion piping; Armour

& Co., Chicago, large order direct-expansion piping; Muesel Brewing Co., South Bend, Ind., direct-expansion piping for brewery cellars; Thompson Hotel, Lincoln, Neb., 30-ton refrigerating plant, including small freezing system; King Bros., Garden City, Kan., 15-ton ice plant; Irwin Bros., Chicago, 15-ton refrigerating plant; Franklin & Hayes Brewing Co., Pocatello, Idaho, seven-ton freezing system; Florence (Col.) Crystal Ice Co., condensers and large order of fittings; L. Elsenmenger Meat Co., St. Paul, Minn., large order direct-expansion piping; Baier & Ohlendorf, Freeport, Ill., four-ton freezing system; Seventh District Ice Co., New Orleans, condensers, distilling apparatus, etc., for 25-ton ice-plant equipment; Hoopston (Ill.) Ice & Storage Co., 10-ton ice plant; Masontown (Pa.) Brewing Co., 65-ton refrigerating plant and 15-ton freezing system; Triggs Candy Co., Chattanooga, six-ton refrigerating plant; Bloomer Ice & Cold Storage Co., Council Bluffs, Iowa, large order brine piping; Wauchula (Fla.) Manufacturing Co., 15-ton ice plant; enlarging compressor for United Breweries Co., Chicago, and James M. Connor, New Orleans, 40-ton ice plant.

TRADE LITERATURE.

"Ideal" Concrete Literature.

The Ideal Concrete Machinery Co. of South Bend, Ind., announces the publication of its new primary catalogue. It issues two catalogues, the primary and the complete catalogue, the latter having 172 pages. Another publication of the company is "What Others Say About Us." This "Ideal" concrete literature will have further mention later on.

"Everbest" Magazine.

Again the "Everbest" Magazine makes its appearance, the April number being now ready. It contains much that will interest people who are concerned with things electrical. This little publication is of value for the use of the buyer of electrical appliances of all kinds, besides presenting some few remarks for their amusement. It is issued by the Ewing-Merkle Electric Co., St. Louis, Mo.

Facts Having Weight.

In "Facts Having Weight" is presented a leaflet that will interest those who have use for weighing equipment of any character. The leaflet tells about modern scales, and especially points out the merits of a particular make of scales, those manufactured by the Buffalo (N. Y.) Scale Co. This company has become well known for its product of scales of various classes, both as to manufacture and accuracy in actual service.

Mechanical Equipments Offered by McAdoo.

Descriptive literature has been issued by Thomas McAdoo, 125 North 4th street, Philadelphia, Pa., relative to the Berryman feed-water heater and purifier, Hartford feed-water heater and purifier, Davis distilling condenser, Davis economic gang pump and other equipment built by Messrs. I. B. Davis & Sons, Hartford, Conn. Mr. McAdoo invites inquiries from prospective buyers.

Modern Slate Products.

Users of the various kinds of slate products are advised that roofing-slate price-list No. 27 has been issued by the Vermont Slate Co. This publication tells of the company's products, now in large demand and called for in increasing quantities every day. It lists the Vermont Slate Co.'s superior sea green and royal unfading green roofing slates, mill stock, etc. The company is also a wholesale dealer in all grades of black slate and all other colors. Inquiries are invited for the new list; general offices, Granville, N. Y.

The New Ober Catalogue.

Users of the various classes of woodworking machinery and similar equipment will find of interest the new catalogue of the Ober Manufacturing Co. of Chagrin Falls, Ohio. This company lists and describes its complete line of Ober lathes, sanders, shapers, turning lathes for handles, etc., saw mandrels, chucks, etc. It has long been known as originating and building machinery for woodworking purposes, and its new catalogue presents details of value for the consideration of managers of plants wherein such machinery is required.

Myron C. Clark Publishing Co.

Announcement is made of the removal of the main office of the Myron C. Clark Publishing Co. to 353-5-7 Dearborn street, Chicago, where one-half of the ninth floor of the Ellsworth Building has been leased. Eastern office will be continued at 13-21 Park row, New York, and Boston office at 170 Summer street. The company publishes Engineer-

ing-Contracting, Railway Maintenance and Structures and numerous engineering and technical books. Among the well-known trade-journal men connected with the company are Messrs. Halbert P. Gillette, Charles S. Hill, Myron C. Clark and A. B. Gilbert, all formerly with the Engineering News.

About Concrete Mixers.

Concrete is being used more and more every day for construction purposes of various kinds, and the mixing of concrete is therefore a subject of timely interest. American ingenuity has devised concrete mixers that are meeting the demands of the day, and some timely information regarding such equipments is presented in a booklet now being distributed. This publication tells about the merits of the improved Coltrin concrete mixer, manufactured by the Knickerbocker Company of Jackson, Mich. The Coltrin mixer is widely used, and as its superior features become better known the demand largely increases. Its details are fully presented in the booklet, and accompanying literature shows the results that users have attained in actual practice.

Lighten Your Machinery Loads.

Friction is created wherever surfaces are caused to rub one upon the other. This friction in engines and machinery is injurious because it causes the wear and tear of the metals forming the bearings, and if allowed to continue without any attention, is likely to lead to other evils—distortion of the machinery, breakdowns, etc. It is not possible to entirely eliminate friction, but it is possible to reduce it to a minimum by the use of the best lubricants. The subject of lubrication is fully considered in "Lighten Your Machinery Load With Albany Grease." The publication named is issued by Messrs. Adam Cook's Sons, 313 West street, New York, in the interest of their product, Albany Grease, which has been known for many years as a highly efficient lubricant.

Glasgow Iron Co. Catalogue.

All buyers and users of iron and steel plates, muck bars and flanged and pressed work should have at hand for reference the catalogue of the Glasgow Iron Co. It may be mentioned that in iron and steel plates the company manufactures sheared and universal steel boiler, tank, bridge and ship plates, sheared and universal iron plates for skelp, tanks, standpipes, flats for cars and locomotives, etc. A catalogue superseding all previous issues of the company is now ready, and it illustrates and describes a few of the many types of flanged and press work offered. It is in convenient size and form, with cloth cover, and contains tabulated price-lists and sizes that are of value. The Glasgow Iron Co.'s offices are at 603 and 608 Harrison Building, Philadelphia; 83 Washington street, New York; 272 Franklin street, Boston.

Universal Oiling Ring Hangers.

Power users will find timely data for them to consider in a booklet issued by the Royersford Foundry & Machine Co., 43 North 7th street, Philadelphia, Pa. The booklet presents details of the ring oiling hanger with universal adjustment that has become so popular during the past five years. This device can be used as a drop hanger, wall bracket or floor stand. Having side adjustment as well as vertical, it is easy to erect and correctly align. Where buildings have settled or shrunk it is only necessary to readjust the setscrews, without moving the frame, to relieve the pressure on the bearings caused when the alignment is disturbed. The frame and yoke of the universal hanger, post hanger and pillow block are one continuous casting, the joint between them being afterwards broken, and this gives great strength and good finish. Other power-transmitting material is also listed in the pages of the booklet.

Modern Mechanical Drying Machinery.

Mechanical drying machinery of the latest approved type is described in a publication now ready for mailing to those interested in this subject. The equipments in reference have been built for 15 years by a company which has been called upon to dry almost every substance containing moisture, and during that period many different types of driers, embodying new features, have been supplied to purchasers. In almost every branch of industry these driers will be found playing an important part in productive activity. The type known as the rotary-cylinder drier is usually called for, but other designs meeting varying conditions are promptly obtainable. The machinery referred to is built by that well-known manufacturer, the C. O. Bartlett & Snow Company of Cleveland, Ohio. It is fully detailed in the

publication named, that being the company's catalogue No. 16. The C. O. Bartlett & Snow Company is also widely known for its output of an extensive line of other machinery for industrial purposes. Labor-saving equipments are given special attention.

The "Richmond" Heating Boilers.

Advance sheets of the new "Richmond" boiler catalogue are being issued. They call attention to the superior product offered. The illustrations and data are presented with the belief that they will win appreciation of efforts to compile a book illustrating all that is best in heating appliances. With one or two exceptions the illustrations are direct photographic reproductions of the boilers set up complete as for actual service, in the manner and position in which they are shown. This method of illustrating gives one the satisfaction of knowing that the illustrations are reproductions from actual photographs, and are not the drawings of an artist unfamiliar with the goods, whose work therefore would have been more or less imperfect in detail. The designs are the result of almost 40 years' development and evolution in the manufacture of "Richmond" boilers for steam and hot-water heating. "Richmond" boilers are built by the McCrum-Howell Co., 46 and 48 East 30th street, New York. Last week the company opened its new warehouse and branch at 14 McClellan's alley, Baltimore, Md.

Cyclone Drill Co.

The new catalogue of the Cyclone Drill Co., Orrville, Ohio, aptly refers to the company's products. It says, in part: "When we entered the field with the Cyclone drilling machine we realized that in order to lay a solid foundation upon which to erect a successful and permanent business we would have to present improvements that would not only appeal to the needs of drillers, but command their recognition. We therefore present to our patrons and the trade in general our catalogue, showing in detail, with brief description, a part of the machinery we manufacture, with the assurance that we will in the future spare no effort in maintaining the high standard of merit and workmanship our machinery has attained. Owing to our rapidly-increasing trade and the introduction of our drills into new territory, meeting new conditions and requirements, we found it necessary to add core drills, both in complete core drilling outfits and core attachments to our standard outfit, also rotary drills to our extensive line of prospecting and well-drilling equipments, ever keeping in mind the fact that up-to-date drillers want the best and latest devices."

Chesapeake Steamship Co. to Jamestown Exposition.

A valuable booklet descriptive of the Jamestown Exposition, how to get there and where to stop when there, is being distributed by the Chesapeake Steamship Co. of Baltimore, which operates a popular line of steamers to Norfolk, Old Point Comfort and Richmond. It contains a general description of the exposition, the historical places to visit in its vicinity, a brief reference to important events of Virginia's history, and the names, locations and rates of the various hotels nearby. Many illustrations of the principal exposition buildings are shown, as well as a number of hotels and historical places. The booklet also has a table giving the time of sailing of both day and night steamers. The day steamer line, which is an innovation, will doubtless prove a most popular route to the exposition, for it will afford an excellent opportunity to view the magnificent scenery of the Chesapeake bay for its entire length. Copies of this booklet, together with any other desired information concerning these trips, will be furnished by communicating with E. J. Chism, general passenger agent of the Chesapeake Steamship Co., Baltimore, Md.

Friction Clutches.

Modern and approved appliances for the transmission of power include the friction clutch. In referring to the advantages of the friction clutch a manufacturer of the devices says: "A friction clutch is a perfect substitute for a pair of tight and loose pulleys. It also possesses many advantages not possible to obtain by the use of tight and loose pulleys. Attached to line shafts or directly to machines, the load is picked up slowly while the driving shaft is running at full speed. It provides a safety device against accidents and eliminates strains upon machinery and belting. The slippage in starting and stopping is taken up by the clutch instead of belt slipping on pulley. By the use of friction clutches, either with pulleys or as couplings, a line shaft or any part of it may be stopped without interfering

with any other part of the shops. This is especially advantageous when it is necessary to make repairs during working hours, or to run one department when the remainder of the plant is closed down, or vice versa. Since it is absolutely a known fact that friction clutches are advantageous, it remains with the user to select the one with the best points in construction and efficiency." The foregoing is the introduction to catalogue No. 23 issued by the T. B. Wood's Sons Company, Chambersburg, Pa., manufacturer of friction clutches. Send for a copy.

Pertaining to Mail Chutes.

An interesting illustrated leaflet has been issued to present some data regarding the United States Express Building in New York, with especial reference to the equipment of mail chutes. It says, in part: "It was originally planned to have two mail chutes delivering into the large bronze collection box. It was found, however, that this improved chute would accommodate and convey as much mail as two chutes of the ordinary standard type. By a simple device, if abnormal mail or packages should be inserted in the chute at any one of the stories, obstruction can only occur at that one story, and the main path of the chute will enable tenants of other stories to use the chute without any interruption. The chute expands below the mailing inlet at each story, so that there is reserve space, and no congestion can occur even if on every one of the 23 stories mail should be rapidly deposited at the same time. There is no seam against the glass or in any part of the chute in which the point of a letter could be caught and held. Another important feature is that the bands of cast bronze which hold the chute in position are made to open on hinges and are locked with padlocks to which the postoffice has the only keys. When these bands are opened any part of the front can be removed instantaneously from the sides and back, so that the Government has access to the interior of the chutes at any point. This mail chute has been approved by the Postmaster-General and is a legal receptacle for mail, so that any notice deposited in any part of it is legally mailed according to the statutes. The mail-collection box (containing 600 pounds of pure bronze) was cast from models made exclusively for this building and designed by the architects, Messrs. Clinton & Russell." The Automatic Mail Delivery Co., Times Building, New York, manufactures the mail chute and mail-delivery apparatus referred to.

Practical Irrigation.

It is the function of irrigation to replace the shortage of natural rainfall in exact quantities necessary to produce maximum crop yields. Hence, progressive agriculturists are becoming more interested every day in practical irrigation. Enterprising farmers no longer dispute but now concede that it is commercially profitable to stimulate the soil by supplementing the natural rainfall with water added by mechanical means. While this statement is generally true, it must be qualified by three basic conditions. This additional water must be applied in proper quantities and at the proper time, and to insure a profit to the farmer the cost of irrigating must be considerably less than the benefits. The desire is universal to raise larger crops and better crops and to decrease the cost of production. Careful buyers must investigate with equal care the application of the water to the crops and the mechanical means for delivering the water. A timely treatise on this subject is "Practical Irrigation," the publisher of which says: "We daily receive letters inquiring 'How much water shall I use in irrigating my crops, and how shall I distribute it?' This is purely a local problem. Rainfall varies in every locality. It is impossible within the limits of this pamphlet to attempt to advise how much water is necessary to benefit a particular crop in a specified place. Our first suggestion is invariably to consult the Department of Agriculture of your own State. Whenever possible, however, we will help you. We desire to help you. We wish to have you write us. We have been engaged in this business for many years and have installed irrigating plants in almost every country of the civilized world. We have had a wide and varied experience. Hence we are often able to give specific advice as to the results which can be expected by irrigating particular crops in stated localities. Generally, however, our friends tell us how much water they need and the location and extent of the available supply. We furnish the machinery which will give the desired result." Messrs. Fairbanks, Morse & Co., 12 Dey street, New York, publish "Practical Irrigation." They invite inquiries for the book.

FINANCIAL NEWS

Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,

Baltimore, Md., May 1.

In the Baltimore stock market during the past week there was little of interest to affect prices, but toward the end of the period a disposition to advance was shown by the active issues of the United Railways & Electric Co.

In the trading United incomes sold from 54 1/4 to 55 1/2; the funding 5s from 84 to 83 3/4, and the 4s from 86 1/2 to 87 1/4; Gas 6s from 104 to 104 1/2; do. 5s, 110 to 109 1/2; do. 4 1/2s, 96; Seaboard 4s, 74 1/4 to 75 1/4; the 10-year 5s at 99 1/2; Cotton Duck preferred, 30 3/4; do. 5s, 80 1/4 to 80; G. B. S. common, 5 1/2; do. incomes from 23 to 24 1/2, last sale at 21 3/4; income scrip, 30; G. B. S. 1sts, 53 to 53 1/2.

Citizens' Bank sold at 31 1/2 to 31; Mechanics' Bank, 26; American Bonding, 43 3/4 to 50; Maryland Trust, 80 to 75 1/2; United States Fidelity, 110 to 112; Fidelity & Deposit, 132; Union Bank, 118; Maryland Casualty, 61.

Other securities were traded in as follows: Atlantic Coast Line, 104 3/4; Northern Central Railway stock, 91 to 93; do. fractions, 90 to 92; Charleston & West Carolina 5s, 108 1/2; City & Suburban (Baltimore) 5s, 109; Baltimore City 3 1/2s, 1930, 102; United Investment Co. of Philadelphia 5s, 85 1/4; Baltimore City Passenger 5s, 103 to 101; City & Suburban (Washington) 5s, 101 1/2; Baltimore Sparrows Point & Chesapeake 4 1/2s, 92; German Fire Insurance, 16 3/4; Virginia Century, 93 1/4; Anacostia & Potomac 5s, 101; Atlantic Coast Line of Connecticut 5s, certificates, 105; Seaboard & Roanoke 5s, 107; West Virginia Central 6s, 105 1/2; Alabama Consolidated Coal & Iron 5s, 89; Georgia Southern & Florida common, 21; do. first preferred, 92 1/2; Knoxville Traction 5s, 104; Northern Central 4 1/2s, 107 1/2; Georgia & Alabama 5s, 106 1/2; Lake Roland Elevated 5s, 112 1/4; North Carolina 4s, 101; Norfolk & Portsmouth Traction stock, 32; Georgia Southern & Florida 5s, 108 1/4 to 109; Norfolk Railway & Light 5s, 90 3/4; George's Creek Coal & Iron, 80; Atlantic Coast Line 4s, 95 1/4; do. South Carolina 4s, 90 1/4; Western Maryland 4s, 75 1/4.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended May 1, 1907.

Railroad Stocks.	Par.	Bid.	Asked.
Atlantic Coast.....	100	104 1/4	105
Atlantic Coast of Connecticut.....	100	251	265
Georgia Southern & Florida.....	100	22 1/2	26
Georgia Sou. & Fla. 1st Pfd.....	100	96	96
Georgia Sou. & Fla. 2d Pfd.....	100	74	86
Seaboard Company Common.....	100	15	19
Seaboard Company 1st Pfd.....	100	60	75
Seaboard Company 2d Pfd.....	100	30	30
United Railways & Elec. Co.....	50	13	13 1/4

Bank Stocks.	Par.	Bid.	Asked.
Citizens' National Bank.....	100	31	32
Commercial & Far. Blue Cfs.....	100	130	132
Drovers & Mech. Natl. Bank.....	100	235	235
Farmers & Mer. Natl. Bank.....	100	48	48
German Bank.....	100	105 1/2	105 1/2
Maryland National Bank.....	100	20	19 1/2
Mechanics' National Bank.....	100	170	175
National Howard Bank.....	100	12 1/2	13
National Marine Bank.....	100	30	37 1/2
National Mechanics' Bank.....	100	26	26
National Union Bank of Md.....	100	118	120

Trust, Fidelity and Casualty Stocks.	Par.	Bid.	Asked.
Fidelity & Deposit.....	50	131	135
International Trust.....	100	100	150
Maryland Casualty.....	25	60	61
Maryland Trust.....	100	73	76
Maryland Trust Pfd.....	100	90	99
Union Trust.....	50	65	67
U. S. Fidelity & Guaranty.....	100	112	112

Miscellaneous Stocks.	Par.	Bid.	Asked.
Ala. Con. Coal & Iron.....	100	65	65
Ala. Con. Coal & Iron Pfd.....	100	87 1/2	88 1/2
Consol. Cotton Duck Common.....	50	11 1/2	13
Consol. Cotton Duck Pfd.....	50	30	31
Con. Gas, Elec. Lt. & P. Pfd.....	100	82	82
Consolidation Coal.....	100	89 1/2	92
G. B. S. Brewing Co.....	100	5	6
George's Creek Coal.....	100	78 1/2	80
Merch. & Miners' Trans. Co.....	100	290	290

Railroad Bonds.	Par.	Bid.	Asked.
Albany & Northern 5s, 1916.....	100	95	95
Atlanta & Charlotte Ext. 4 1/2s.....	100	100	100
Atlantic Coast Line 1st 4s, 1952.....	100	95	96 1/2
Atlantic Coast Line 4s, Cfs., 1952.....	100	83	83
Atlantic Coast Line (Conn.) 5s.....	100	100	109
Atlantic Coast Line (Conn.) 4s.....	100	79	85
Atlan. Coast Line (S. C.) 4s, 1948.....	100	99 1/4	99 1/4
Carolina Central 4s, 1949.....	100	91 1/2	91 1/2
Florida Southern 4s, 1940.....	100	106 1/2	107 1/2
Georgia & Alabama 5s, 1945.....	100	107 1/2	107 1/2
Georgia, Car. & North, 1st 5s, 1928.....	100	107 1/2	107 1/2
Georgia Sou. & Fla. 1st 5s, 1945.....	100	108 3/4	109
Maryland & Pennsylvania 4s, 1961.....	100	92 1/2	92 1/2
Petersburg, Class B 6s, 1925.....	100	121 1/2	123
Raleigh & Augusta 1st 6s, 1925.....	100	120	120
Savannah, Fla. & West, 5s, 1934.....	100	126	127
Seaboard Air Line 4s, 1950.....	100	74 1/2	75 1/4
Seaboard Air Line 5s, 10-year, 1911.....	100	97	98
Seaboard & Roanoke 5s, 1925.....	100	107	107 1/2
Southern Railway Con. 5s, 1904.....	100	111	111
Virginia Midland 2d 6s, 1911.....	100	104 1/2	104 1/2
Virginia Midland 5th 5s, 1925.....	100	107	107 1/2
Western Maryland new 4s, 1952.....	100	75	75 1/2
Western North Car. Con. 6s, 1914.....	100	109	110
West Virginia Cen. 1st 6s, 1911.....	100	105 1/2	105 1/2
Wilmington, Col. & Aug. 6s, 1910.....	100	104 1/2	107
Wilmington & Wei. Gold 5s, 1935.....	100	111	111

Street Railway Bonds.

Anacostia & Potomac 5s, 1949.....	100 1/4	101
Atlanta Con. Street Rwy. 5s.....	103	105
Baltimore City Pass. 5s, 1911.....	100 1/2	101 1/2
Baltimore Traction 1st 5s, 1929.....	108 3/4	108 3/4
Charleston City Railway 5s, 1923.....	103	103
Charleston Con. Elec. 5s, 1939.....	93	93
City & Suburban 5s (Balt.), 1922.....	108	109
City & Suburban 5s (Wash.), 1945.....	101 1/2	101 1/2
Knoxville Traction 1st 5s, 1928.....	104	105 1/2
Lake Roland Elevated 5s, 1942.....	111	113 1/2
Macon Ry. & Lt. 1st Con. 5s, 1955.....	93	96
Norfolk Railway & Light 5s.....	90	100
North Baltimore 5s, 1942.....	111	117
United Railways 1st 4s, 1949.....	87	87 1/2
United Railways Inc. 4s, 1949.....	55	55 1/2
United Railways Funding 5s.....	83 1/2	83 1/2

Miscellaneous Bonds.

Ala. Con. Coal & Iron 5s.....	88 1/2	90
Consolidated Gas 6s, 1910.....	104	104 1/2
Consolidated Gas 5s, 1929.....	100 1/2	100 1/2
Con. Gas, Elec. Lt. & Power 4 1/2s.....	81 1/2	83
G. B. S. Brewing 1sts.....	53	54
G. B. S. Brewing 2d Incomes.....	21	21 1/2
Maryland Steel 5s.....	100	102 1/2
Maryland Telephone 5s.....	84	86
Mt. Vernon-Woodby Cot. Duck 5s.....	79 3/4	80 1/4
United Elec. Lt. & Power 4 1/2s.....	90	90

SOUTHERN COTTON-MILL STOCKS.

Quotations furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending April 29.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	90	93
Aetna Cotton Mills (S. C.) Pfd.....	70	70
Alken Mfg. Co. (S. C.).....	82	89
American Spinning Co. (S. C.).....	125	125
Anderson Cotton Mills (S. C.).....	90	90
Aradina Mills (S. C.).....	98	100
Arkwright Cotton Mills (S. C.).....	112	112
Augusta Factory (Ga.).....	80	85
Avondale Mills (Ala.).....	110	110
Belton Mills (S. C.).....	105	105
Bibb Mfg. Co. (Ga.).....	115	115
Brandon Mills (S. C.).....	128	128
Brogan Mills (S. C.).....	62	62
Cabarrus Cotton Mills (N. C.).....	130	130
Chadwick Mfg. Co. (N. C.) Pfd.....	104	103
Chiquola Mfg. Co. (S. C.).....	104	104
Clifton Mfg. Co. (S. C.).....	115	115
Clifton Mfg. Co. (S. C.) Pfd.....	103	103
Clinton Cotton Mills (S. C.).....	155	155
Columbus Mfg. Co. (Ga.).....	94	97
Courtenay Mfg. Co. (S. C.).....	100	100
Dallas Mfg. Co. (S. C.).....	92	96
Darlington Mfg. Co. (S. C.).....	80	85
D. E. Converse Co. (S. C.).....	112	112
Eagle & Phenix Mills (Ga.).....	128	128
Easley Cotton Mills (S. C.).....	130	136
Enoree Mfg. Co. (S. C.).....	75	82
Enoree Mfg. Co. (S. C.) Pfd.....	100	102
Enterprise Mfg. Co. (Ga.).....	82	90
Exposition Cotton Mills (Ga.).....	174	200
Gaffney Mfg. Co. (S. C.).....	92	94
Gainesville Cotton Mills (Ga.).....	45	52
Glenwood Cotton Mills (S. C.).....	105	105
Gluck Mills (S. C.).....	94	98
Granby Cot. Mills (S. C.) 1st Pfd.....	50	50
Granville Mfg. Co. (S. C.).....	160	165
Greenwood Cotton Mills (S. C.).....	94	98
Grendel Mills (S. C.).....	115	115
Hartsville Cotton Mill (S. C.).....	100	102
Henrietta Mills (S. C.).....	105	105
Inman Mills (S. C.).....	98	110
King Mfg. Co., J. P. (Ga.).....	97	103
Lancaster Cotton Mills (S. C.).....	102	110
Lancaster Cot. Mills (S. C.) Pfd.....	92	99
Langley Mfg. Co. (S. C.).....	92	96
Laurens Mills (S. C.).....	152	162
Limestone Mills (S. C.).....	120	120
Lockhart Mills (S. C.).....	97	101
Lockhart Mills (S. C.) Pfd.....	99	105
Loray Cotton Mills (N. C.) Pfd.....	90	105
Louise Mills (N. C.).....	90	95
Louise Mills (N. C.) Pfd.....	102	102
Marlboro Cotton Mills (S. C.).....	90	90
Mayo Mills (N. C.).....	150	200
Mills Mfg. Co. (S. C.).....	102	102
Molokohon Mfg. Co. (S. C.).....	102	102
Monaghan Mills (S. C.).....	109	109
Monarch Cotton Mills (S. C.).....	112	112
Newberry Cotton Mills (S. C.).....	127	127
Ninety-Six Cotton Mills (S. C.).....	104	104
Norris Cotton Mills (S. C.).....	106	106
Odell Mfg. Co. (N. C.).....	90	90
Orangeburg Mfg. Co. (S. C.) Pfd.....	80	80
Orr Cotton Mills (S. C.).....	100	103
Pacolet Mfg. Co. (S. C.).....	170	180
Pacolet Mfg. Co. (S. C.) Pfd.....	101	104
Pelzer Mfg. Co. (S. C.).....	167	175
Piedmont Mfg. Co. (S. C.).....	167	167
Poe Mfg. Co., F. W. (S. C.).....	125	130
Raleigh Cotton Mills (N. C.).....	100	100
Richland Cot. Mills (S. C.) Pfd.....	59	59
Roanoke Mills (N. C.).....	118	118
Saxon Mills (S. C.).....	120	127
Sibley Mfg. Co. (Ga.).....	58	63
Southern Cotton Mills (N. C.).....	63	63
Spartan Mills (S. C.).....	149	152
Springsteen Mills (S. C.).....	100	100
Trion Mfg. Co. (Ga.).....	132	140
Tucapua Mills (S. C.).....	190	190
Union-Buffalo 1st Pfd.....	72	75
Union-Buffalo 2d Pfd.....	25	30
Victor Mfg. Co. (S. C.).....	115	115
Warren Mfg. Co. (S. C.).....	97	100
Warren Mfg. Co. (S. C.) Pfd.....	106	107
Washington Mills (Va.).....	25	25
Washington Mills (Va.) Pfd.....	100	105
Whitney Mfg. Co. (S. C.).....	150	150
Wiscasset Mills (N. C.).....	119	119
Woodruff Cotton Mills (S. C.).....	125	130

New Bank for New Orleans.

The Hibernia National Bank of New Orleans, which has been approved by the Comptroller of the Currency, is, according to a report from that city, a branch of the Hibernia Bank & Trust Co. of New Orleans, but it will have separate officers and a separate force of clerks. The object for its organization is said to be the handling of country bank deposits without limit. It is also said that all but one of the larger banking institutions of New Orleans are now operated under the Louisiana State laws. The new bank will begin business July 1.

Bank Reports.

The People's Bank & Trust Co. of Rock Hill, S. C., has issued a statement of its condition at the close of business February 27, 1907, showing loans and discounts, \$78,775; cash in vault and banks, \$38,659; capital stock, \$30,000; undivided profits (net), \$3704; deposits, \$86,339; total resources, \$120,043. The company has also issued a neat pamphlet containing several illustrations and describing its method of conducting business. The bank was organized in February, 1906, and the officers are L. C. Harrison, president; Leroy Springs and J. B. Johnson, vice-presidents; C. L. Cobb, cashier, and John R. London, assistant cashier.

New Corporations.

Reports state that a bank is to be established at McMoresville, Tenn., by leading citizens and business men.

It is reported that a \$35,000 State bank is being organized at Detroit, Texas, by citizens of Red River county.

The Bank of Elizabethtown at Elizabethtown, N. C., has been chartered with \$5000 capital by J. M. Clark, C. C. Lyon and others.

The First State Bank of Mt. Calm, Texas, has been incorporated with \$25,000 capital by B. H. Oates, J. H. Reynolds and others.

Local capital is reported to be organizing a fire insurance company at Salisbury, N. C. Alderman L. Ed Heilig is said to be interested.

The Jackson County Abstract Co. of Scranton, Miss., has been incorporated with \$2000 capital by W. D. Bullard, W. P. Ramsay and others.

The Eaton-Gross Abstract Co. of Mineral Wells, Texas, has been incorporated with \$6000 capital by John H. Eaton, Andrew Reede, W. H. Gross and W. E. Allen.

The McKnight-Williams Abstract Co. of Amarillo, Texas, capital \$10,000, has been incorporated by A. L. McKnight, George S. Williams, R. L. Stringfellow and R. A. Dunbar.

The Texas State Bank of Texarkana, Texas, has been incorporated with \$15,000 capital by T. J. Noland, L. M. Price, R. E. Taylor, J. H. Wright, J. W. Elliott and others.

Duke State Bank of Duke, O. T., capital \$10,000, has been incorporated by A. L. Perry, T. H. Lea, J. T. Witcher and M. O. Owner of Duke, and H. Mathews of Mangum.

The Ouachita National Bank of Monroe, La., which represents the merger of the Monroe National and the Ouachita National, has begun business with \$300,000 capital.

The Commercial Bank of Dawson Springs, Ky., has been incorporated with \$15,000 capital by I. N. Day and J. F. Hoover of Dawson Springs and J. V. Haydon of Salem.

The First National Bank of Robert Lee, Texas, has been approved; capital \$25,000. D. B. McCallum is president, W. J. Adams vice-president and H. H. Pearce cashier.

The Corrigan State Bank at Corrigan, Texas, has been incorporated with \$10,000 capital by T. H. Nees, W. O. Handley, M. B. Cannon, J. L. Burch, E. Parks, J. W. Cobb and others.

The Comfort State Bank of Comfort, Texas, has been incorporated with \$25,000 capital by Paul G. Villaret, Alex P. Villaret, Vincent J. McAttee and August S. Taltin and others.

The Cumby State Bank of Cumby, Texas, capital \$15,000, has been incorporated by Y. C. McAdams, Dr. O. Smith, M. LeLoach, L. Strickland, A. S. Moore and H. L. Carpenter.

The Roanoke Banking Co. has been in-

corporated at Roanoke, Va., with from \$10,000 to \$25,000 capital by M. W. Turner, president; L. B. Cabaniss and L. S. Davis, all of Roanoke, Va.

Application to organize the People's National Bank of Strasburg, Va., with \$25,000 capital has been made by H. C. Burgess, A. P. McInture, E. P. Gebbard, P. N. Jarrett and B. M. Bushong.

The Perry Banking Co. at Perry, Fla., capital \$40,000, has begun business with the following officers: President, D. G. Malloy; vice-presidents, John McLean and T. B. Puckett; cashier, J. H. Scales.

The Central Bank of Mississippi at Jackson, Miss., is being organized with \$50,000 capital. The incorporators are W. J. Rice, L. E. Schilling, Robert Powell, George May, N. T. Anders and others.

Application to organize the First National Bank of Galax, Va., with \$25,000 capital has been made by T. L. Felts, Ethel Felts, J. P. Blair, W. M. Houseman, A. C. Painter and W. D. Tompkins.

Articles of incorporation for the Acwater Investment Co. of Thomaston, Ga., capital \$50,000, have been filed by J. H. Smith of Griffin, George R. Turpin of Macon and James R. Atwater of Thomaston.

The Union Investment Co. of Little Rock, Ark., capital \$5000 to \$15,000, has filed its charter. The officers are S. S. Gallie, president; G. A. Gallie, vice-president, and R. S. Gallie, secretary and treasurer.

The Sanger National Bank of Sanger, I. T., capital \$30,000, has been approved. The organizers are F. H. Sherwood, Gainesville, Texas; B. D. Jones, A. H. Wilson, S. A. Grandell, R. B. Wells and O. M. Gentile.

A bank is reported organized at East New Market, Md., with the following directors: S. L. Webster, president; W. E. Johnson, C. W. Demott, John Phelan, Charles Webster, John A. Baker and W. S. Tilghman.

The New Hibernia National Bank of New Orleans, La., has been approved; capital \$400,000. The organizers are John J. Gannon, Hugh McCloskey, R. W. Wilmot, W. P. Brown, Gustaf R. Westfeldt and others.

The Farmers' State Bank of Texhoma, O. T., has been incorporated with \$25,000 capital by Ben F. Davis and W. E. Benson of Texhoma, Dr. E. Snow, J. P. Reeder, T. M. McCrory and Arthur Life of Stratford, Texas.

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